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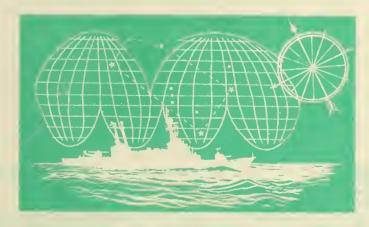
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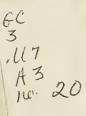
CG 373-20

OCEANOGRAPHIC OBSERVATIONS
NORTH ATLANTIC OCEAN STATION BRAVO

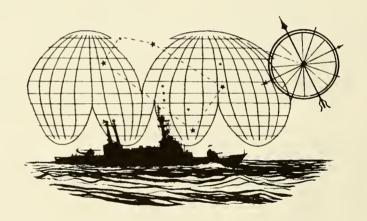
October 1966-October 1967



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#### REPORT No. 20 CG 373-20

OCEANOGRAPHIC OBSERVATIONS NORTH ATLANTIC OCEAN STATION BRAVO 56° 30′ N., 51° 00′ W.

October 1966-October 1967

By Joseph L. Shuhy





Frontispiece: USCGC HUMBOLDT, a 311 Ft. High Endurance Cutter; Homeport: Portland, Maine.

#### **Abstract**

This report contains the observed and interpolated temperature and salinity data, plus the computed sigma±, geopotential anomalies and sound velocities for 125 oceanographic stations taken by seven U.S. Coast Guard Cutters occupying Ocean Station BRAVO (centered at 56°30′ N., 51°00′ W.) during October 1966-October 1967. They were the USCGC DUANE, 8-28 October 1966; USCGC McCULLOCH, 24 November-12 December 1966; USCGC HUMBOLDT, 7-31 January 1967; USCGC BIBB, 24 February-14 March 1967; USCGC ESCANABA, 6-24 April 1967; USCGC SPENCER, 27 May-6 June 1967; USCGC SE-BAGO, 29 June-21 July 1967; USCGC McCULLOCH, 14 August-5 September 1967; USCGC SPENCER, 29 September-23 October 1967. Casts of 14 levels were made to 1,500 meters when weather and operating conditions permitted. An attempt was made to extend sampling to near the bottom once on each patrol.



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#### Introduction

Ocean Station BRAVO is located in the North Atlantic Ocean at latitude 56°30' N. and longitude 51°00' W. This station has been monitored since January 1964. The first report on the data collected at this ocean station covers the period of time January-April 1964, including 46 Oceanographic Stations. The results of this initial study are published in the Coast Guard Oceanographic Report No. CG 373-7. The second report, Coast Guard Oceanographic Report No. CG 373-9, covered the period August 1964-August 1965 during which time 73 oceanographic stations were taken at BRAVO. The Coast Guard Oceanographic Report No. CG 373-14 was the third in the series. This report covered the period October 1965-September 1966 during which time 68 stations were taken.

This is the fourth report of the series and covers the period October 1966–October 1967 during which time 125 oceanographic stations were occupied. Data from the previous reports are used to show the variations of temperature and salinity for the past four years.

#### **Procedures**

During the period October 1966-October 1967 U.S. Coast Guard cutters were instructed to take daily Nansen casts, weather and operating conditions permitting, while occupying Ocean Station BRAVO. These casts were made at 14 prescribed levels to 1500 meters. They were also instructed to take at least one deep cast as close to the bottom as practicable during each patrol. On shallow casts the prescribed sample depths were as follows: 0, 25, 50, 100, 150, 200, 250, 300, 400, 500, 600, 800, 1000, and 1500, meters. The prescribed depths for the deep casts were 2000, 2500, 3000, and 150 and 50 meters off of the bottom.

Two deep-sea reversing thermometers were attached to each Nansen bottle. Between the depths of 200 and 1500 meters an unprotected thermometer was also used on four to five

Nansen bottles to determine thermometric depths. Depths which were determined thermometrically are preceded by a "T" in the station data, Tables I-IX. Field observations were returned to the Coast Guard Oceanographic Unit (CGOU) for reduction to "in situ" temperature and determination of sample depths. The procedures used in recording and processing of the thermometric data are similar to those in the U.S.N.H.O. Pub. No. 607(1955) and Lafond (1951). The CGOU used a Digital Equipment Corporation PDP-5 computer to determine corrected temperatures for the protected thermometers and determine the thermometric depth of the unprotected thermometers.

Water samples were drawn from each Nansen bottle and stored in citrate bottles for salinity determinations. The salinity was determined aboard ship using induction salinometers. Duplicate samples were drawn from the top and bottom bottles of each cast and delivered to CGOU for quality control purposes when the vessel returned to port.

The processed temperature and salinity data were recorded on form NHO/NODC-3167/1 (1-61), "Physical and Chemical Data form for Oceanographic Stations" and delivered to the National Oceanographic Data Center (NODC). The interpolated temperatures and salinities for standard depths, sigma-t, specific volume anomalies ( $\triangle$ D), and sound velocities were computed by NODC and are presented in Tables I-IX.

The Ocean Station vessels are normally required to maintain station within a ten-mile square grid. The actual positions of the stations taken on each patrol are shown in figures 3–11. Forty of the 125 stations taken were outside of the ten-mile grid.

The USCGC DUANE occupied 11 oceanographic stations during the period 8-28 October 1966. Nine of the casts were to depths ranging from 1273 to 1775 meters. One station

had useful data only to a depth of 620 meters. One deep station was taken to a depth of 3574 meters in a water depth of 3612 meters. The water depth of all stations ranged from 3450 to 3658 meters. Figure 3 shows the distribution of the stations taken during this patrol. All oceanographic data collected by the Ocean Station vessels were transmitted via radio teletype to the CGOU for real time processing and quality control. The data are listed by NODC as Ref. No. 31–771 DU and as Table I of this report.

The USCGC McCULLOCH occupied eight oceanographic stations from 24 November to 12 December 1966. Due to bad weather three stations were sampled to depths of only 716, 412, and 400 meters. Four stations were sampled to depths ranging from 1324 to 1621 meters, and one deep cast of 2875 meters was made in a water depth of 3621 meters. Figure 4 shows the distribution of stations about BRAVO. The data are listed by NODC as Ref. No. 31–819 ML and as Table II of this report.

During the period 7–31 January 1967, twenty oceanographic stations were taken by the USCGC HUMBOLDT. Difficulties prevented the taking of useful data below 285 and 398 meters on two stations. Seventeen oceanographic stations were taken between the depths of 1348 and 1729 meters. One deep cast was taken to a depth of 3396 meters. The distribution of stations is shown in figure 5. The data are listed by NODC Ref. No. 31–870 HU and as Table III of this report.

Nine oceanographic stations were taken by the USCGC BIBB from 24 February to 14 March 1967. Eight of these stations were shallow casts ranging from 1314 to 1580 meters. One deep station to 3545 meters was taken in water 3567 meters deep. The water depth at all stations ranged between 3475 and 3613 meters. The distribution of these stations is shown in figure 6. The data are listed by NODC Ref. No. 31–875 BX and as Table IV of this report.

During the period 6–24 April 1967, twelve oceanographic stations were taken at Ocean Station BRAVO by the USCGC ESCANABA. One station had useful data to a depth of only 399 meters, and eleven stations had data to depths between 1342 and 1592 meters. Due to a flaw in the cable, no deep casts could be made during this patrol. The distribution of these

stations is shown in figure 7. The data are listed by NODC Ref. No. 31–887 EN and as Table V of this report.

The USCGC SPENCER occupied Ocean Station BRAVO between 27 May and 6 June 1967. At all nine stations samples were taken that ranged in depth from 1413 to 1899 meters. All stations had water depths between 3567 and 3658 meters. No deep stations were taken. The distribution of these stations is shown in figure 8. The data are listed by NODC Ref. No. 31–1063 SC and as Table VI of this report.

Twenty-two oceanographic stations were taken during the period 29 June–21 July 1967 by the USCGC SEBAGO. During this highly successful monitoring of station BRAVO, twenty-one shallow casts were taken that ranged in depth from 1392 to 1607 meters. One deep cast to a depth of 3541 meters was taken in 3658 meters of water. The distribution of these stations is shown in figure 9. The data are listed by NODC Ref. No. 31–1092 S5 and as Table VII of this report.

Ocean Station BRAVO was again occupied by the USCGC McCULLOCH from 14 August to 5 September 1967. Of the twenty-one stations taken, three had maximum sample depths of 1092, 1021, and 1060 meters, while seventeen stations had maximum sample depths ranging from 1312 to 1784 meters. One deep cast was made to 3461 meters in 3475 meters of water. The distribution of these stations is shown in figure 10. Three of the stations are not shown because they were taken beyond the boundaries of the figure. The data are listed by NODC Ref. No. 31–1157 ML and as Table VIII of this report.

The USCGC SPENCER occupied station BRAVO for a second time from 1–20 October 1967. One shallow cast resulted in useful data only to a depth of 258 meters, six stations had useful data to depths that ranged from 936 to 1211 meters, and the remaining six shallow casts had a range of from 1395 to 1652 meters. One deep cast to 2438 meters was made. The distribution of these stations is shown in figure 11. The data are listed by NODC Ref. No. 31–1174 SC and as Table IX of this report.

#### Discussion

The data from the nine patrols at Ocean Station BRAVO cover a one year period from 8

October 1966 to 20 October 1967. The data of these nine patrols, as well as that gathered since January 1964, have been carefully studied in the preparation of this report. With the help of the data collected on the previous patrols, the variations of temperature and salinity since January 1964 have been included in this report.

Figures 12–20 show the vertical envelopes of temperature vs. depth for each of the nine patrols. Figure 12 shows the thermocline to be expected during the month of October. During this month the surface temperature varied between 6.14 and 7.09° C. The surface layer extended down to about 50 meters. The main thermocline was limited to the region between 50 and 100 meters where an average decrease of 2.40° C/50 meters was found. There was a slight temperature inversion between 100 and 150 meters, after which the temperature gradually decreased with depth.

The effects of the start of winter cooling are depicted in figure 13. The surface temperature ranged from 4.85 to 3.99° C. with the exception of one station where the surface temperature of 5.59° C. penetrated to a depth of 50 meters. The data for this station have been carefully checked and are considered valid. Although not defined in figure 13, there were two inversions in the top 150 meters of the water column on most of the stations taken during this patrol.

During the January 1967 patrol of the HUMBOLDT the surface temperature ranged from 3.51 to 3.96° C. as shown in figure 14. For the most part, the temperature decreased with depth; however, there was an occasional increase of temperature with depth (six out of 20 stations). The maximum temperature in the water column was found between 200 and 250 meters during the first part of the month. Toward the end of the month this maximum temperature decreased both in value and in depth as a result of lateral mixing.

This mixing continued through the patrols of both the USCGC BIBB (figure 15) and the USCGC ESCANABA (figure 16). During the BIBB patrol the temperature experienced a slight increase with depth, the depth of the maximum temperature remaining close to the 400 meter level but occasionally shifting down to 600 meters. This maximum temperature

range was 3.69–3.97° C. compared to a surface temperature range of 3.41–3.52° C. By the start of the April patrol, the temperature inversion had all but disappeared, and by the end of April the surface temperature had decreased to 3.37° C. As a result there was a gradual increase in temperature with depth throughout the water column.

Toward the end of May, warming in the upper 100 meters of the water column was noticeable (figure 17). Daily fluctuations of up to  $0.42^{\circ}$  C. occurred in the surface temperature, but below the 100 meter level the temperature remained relatively constant.

By late June the surface temperature had risen to a range of 5.75–8.41° C. There was a large temperature gradient in the upper 100 meters and a slight increase in temperature in the 100–200 meter range over the previous month (figure 18).

The surface temperature continued to increase until it reached a maximum in late August and early September (figure 19). This maximum temperature was in the neighborhood of 9.5° C. The maximum temperature gradient was still in the upper 100 meters. However, the effects of summer warming were apparent down to about 450 meters.

The surface temperature began to drop during October (figure 20). The maximum temperature gradient was still located in the upper 100 meters and the effects of warming had penetrated to 600 meters.

Figure 21 represents the variation in temperature in the upper 400 meters at Ocean Station BRAVO. Monthly averages were computed from Nansen cast data collected by the Coast Guard since it started monitoring the station in January 1964.

The most noted feature is the regularity with which the temperature varies at all four levels during each 12 month period. At the surface a maximum temperature of about 9.5° C. occurs in late August and early September for all years except 1964, and the minimum usually occurs in March with a temperature range of 3–3.5° C.

At the 50 meter level the maximum temperature lags the surface maximum by about six weeks, occurring in October. This maximum temperature (6.5° C.) is the same temperature as that at the surface at this time. The tempera-

ture at the 50 meter level then approximately coincides with the surface temperature until April when it rises more slowly than the surface temperature.

The 100 meter temperature follows the same general pattern reaching a maximum of between 4 and 5° C. in November. Once again this is the same temperature as that of the surface at this time.

The 400 meter temperature also has a pattern, but not quite the same as the upper levels. The 400 meter level descends to a minimum temperature (3.35°C) in April, and then increases gradually. At the end of December its temperature is higher than that in the upper levels. It then decreases and continues in the same general pattern.

The vertical salinity envelopes are presented in figures 22–30. As shown in figure 22, the surface salinity during October 1966 ranged from 34.56 to 34.66% with the halocline situated between 100 and 300 meters. Below this level there was an inversion extending down to about 600 meters of about  $0.04^{0/00}/300$  meters. Below the inversion the gradual increase in salinity with depth continued.

From November through March there was a gradual increase in the surface salinity with a corresponding increase of the mixing depth. During the 24 November–12 December 1966 patrol of the USCGC McCULLOCH the surface salinity increased to a range of 34.61–34.66% (figure 23). The mixing depth had increased 50 meters over that of the previous month to 100 meters.

Through the month of January the surface salinities increased to a range of 34.67–34.85 ‰. A fairly large gradient was present during the first part of the month. However, by the end of January this had been reduced substantially with mixing occurring down to 300 meters (figure 24).

Figure 25 shows a column of isohaline water whose lower limit varied between 400 and 550 meters. The surface salinities ranged only from 34.79 to 34.83‰.

By April the halocline had all but disappeared and the surface salinities had again increased, the range at that time being 34.82–34.86‰. This relatively isohaline column quickly disappeared in May as indicated by figure 27. The surface salinity dropped

(34.75–34.84%) and maxing occurred only in the upper 100 meters. The next four months experienced a continual decrease in surface salinity, greater salinity gradients, and a decrease in the mixing depth to 50 meters.

The monthly averages of salinity for 4 levels (0,50,100,400 meters) are plotted in figure 31. As was seen in the corresponding plot for temperature, there are definite variations that occur within each year. The surface salinity reaches a minimum in September ( $\approx 34.52$ %). The salinity then increases until November after which there seems to be a secondary salinity minimum in December. There is a rather sharp increase in salinity in January which then becomes more gradual until a maximum is reached in April.

The variation of salinity at the 50 meter level is somewhat more erratic than at the surface. The salinity minimum appears to occur in October with a secondary minimum in December. Sufficient data have not been collected during these winter months to accurately determine the complex variations of salinity for this time of year. From December through May the salinity at the 50 meter level follows the surface salinity quite closely. There appears to be another salinity minimum in August.

At the 100 meter level the salinity minimum occurs in December. There seems to be little rhyme or reason for the monthly variation of salinity at the 400 meter level. This is probably due to the fact that the 400 meter level is not directly influenced by surface effects, but is influenced by lateral motion and diffusion instead.

In Figure 32 are plotted the annual variations of temperature at various depths for the period from January 1964 to October 1967. This plot tends to bring out the striking similarity of the temperature variation each year. Figure 33 is a similar plot for salinity. Once again this similarity is noticed.

#### Summary

The nine patrols at Ocean Station BRAVO during the period 8 October 1966–20 October 1967, plus data collected during previous periods, present a fairly clear picture of the variations of temperature and salinity vs. depth. The monthly and seasonal variations of temperature, and to a lesser degree salinity, have

been quite regular for each of the years 1964–1967, with the maximum surface temperature occurring in late August and early September, and the minimum generally occurring in April.

The primary salinity minimum of the surface occurs in September with a secondary minimum following three months later in December. The salinity maximum coincides with the temperature minimum in April.

A comparison of figures 21 and 31 shows that the depth of penetration of the surface temperature is controlled by the halocline. Since the halocline is present throughout the major part of the year, it appears as though there would be little overturn of the water column in the vicinity of Ocean Station BRAVO.

However, this can not be substantiated until parameters other than temperature and salinity are studied on a time series basis in this vicinity.

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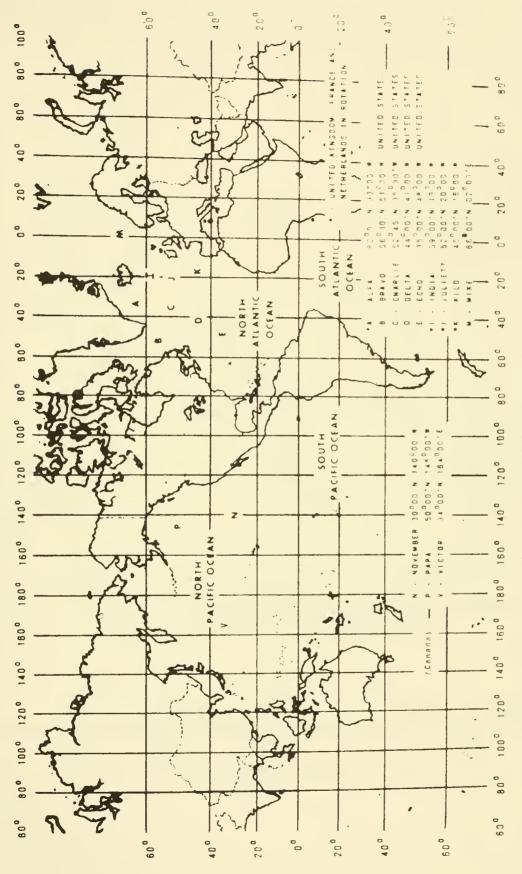


Figure 1. Chart of all Ocean Stations in the world.

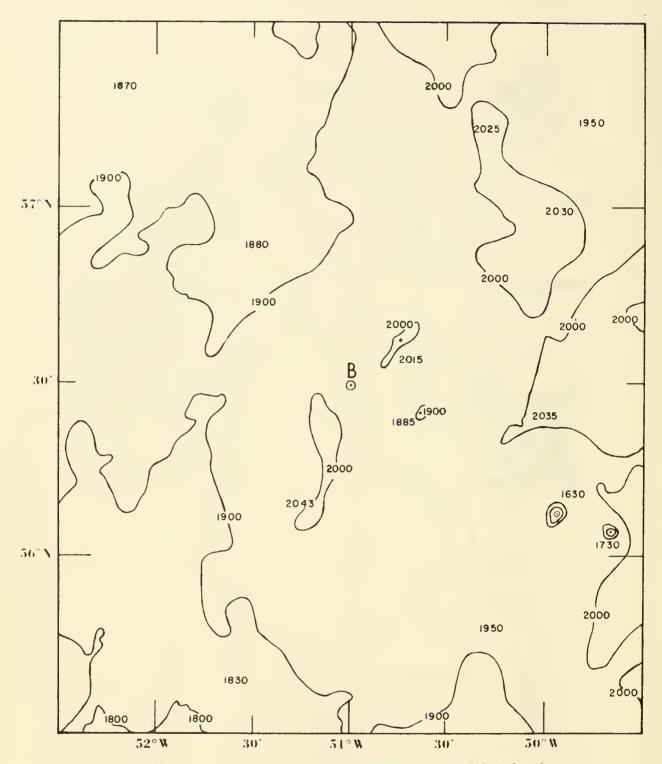


Figure 2. Bathymetric chart of Ocean Station BRAVO, (contoured in fathoms).

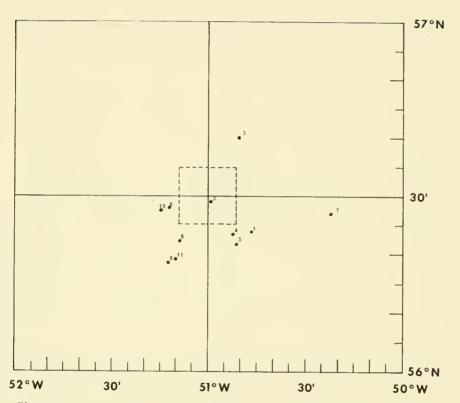


Figure 3. Positions of oceanographic stations taken by USCGC DUANE during 8-28 October 1966 at Ocean Station BRAVO.

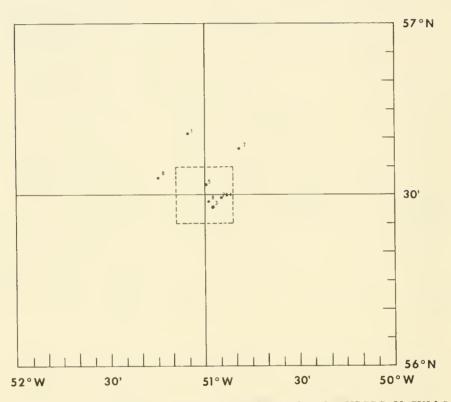


Figure 4. Positions of oceanographic stations taken by USCGC McCULLOCH during 24 November-12 December 1966 at Ocean Station BRAVO.

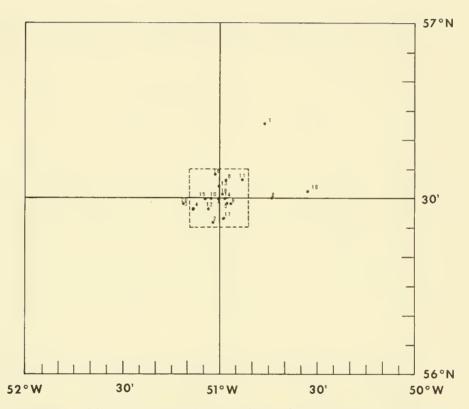


Figure 5. Positions of oceanographic stations taken by USCGC HUMBOLDT during 7-31 January 1967 at Ocean Station BRAVO.

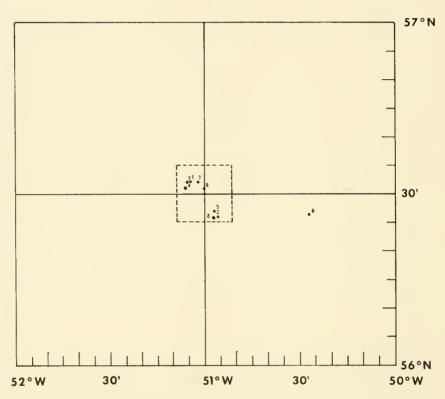


Figure 6. Positions oceanographic stations taken by USCGC BIBB during 24 February-14 March 1967 at Ocean Station BRAVO.

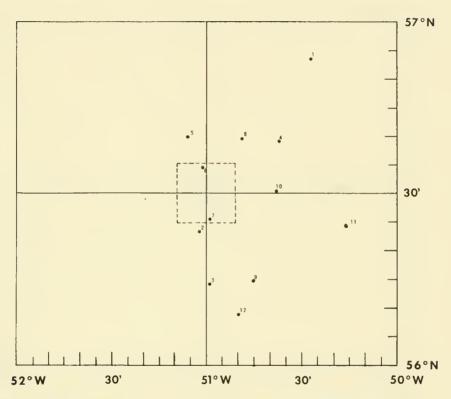


Figure 7. Positions of oceanographic stations taken by USCGC ESCANABA during 6-24 April 1967 at Ocean Station BRAVO.

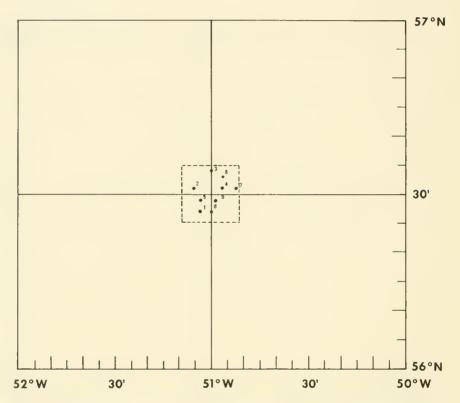


Figure 8. Positions of oceanographic stations taken by USCGC SPENCER during 27 May-6 June 1967 at Ocean Station BRAVO.

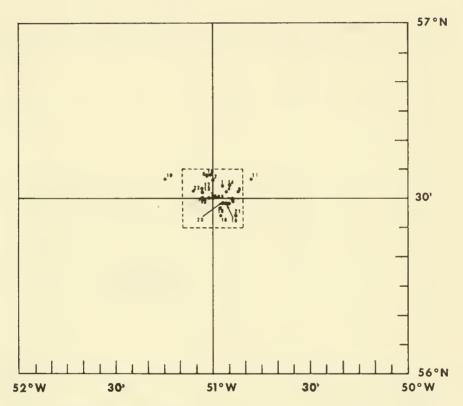


Figure 9. Positions of oceanographic stations taken by USCGC SEBAGO during 29 June-21 July 1967 at Ocean Station BRAVO.

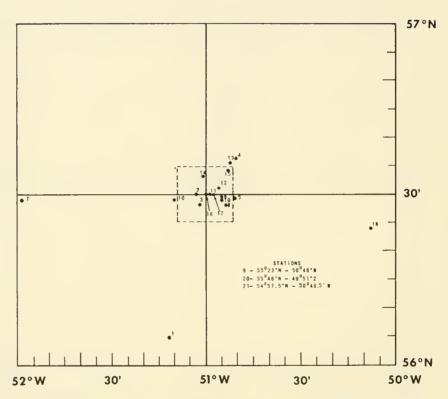


Figure 10. Positions of oceanographic stations taken by USCGC McCULLOCH during 14 August-5 September 1967 at Ocean Station BRAVO.

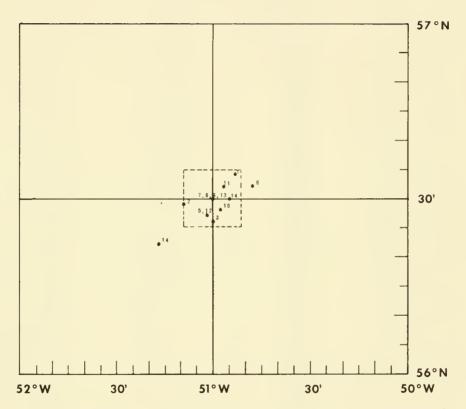


Figure 11. Positions of oceanographic stations taken by USCGC SPENCER during 1-20 October 1967 at Ocean Station BRAVO.

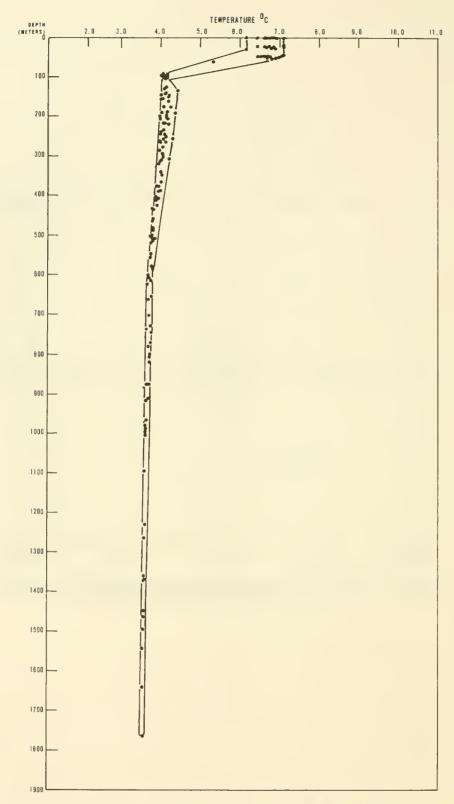


Figure 12. Envelope of temperature versus depth at oceanographic stations taken by USCGC DUANE at Ocean Station BRAVO, 8-28 October 1966.

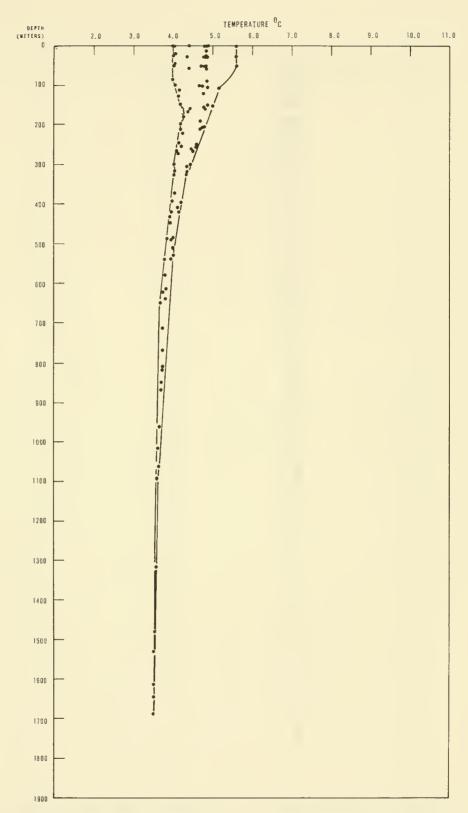


Figure 13. Envelope of temperature versus depth of oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 24 November-12 December 1966.

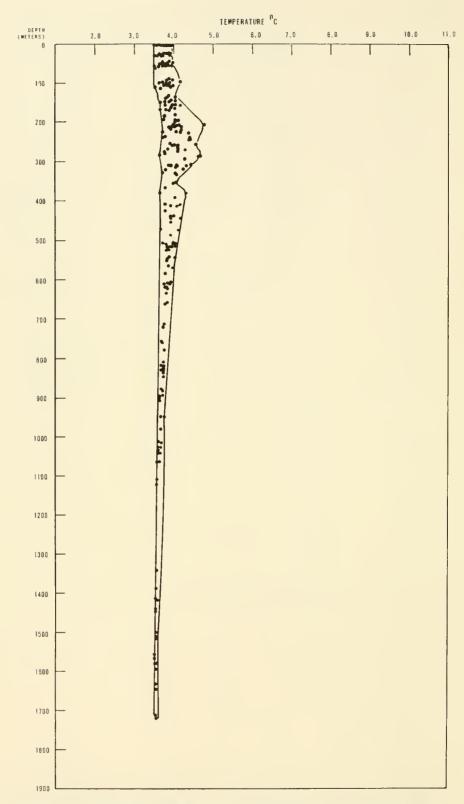


Figure 14. Envelope of temperature versus depth of oceanographic stations taken by USCGC HUMBOLDT at Ocean Station BRAVO, 7-31 January 1967.

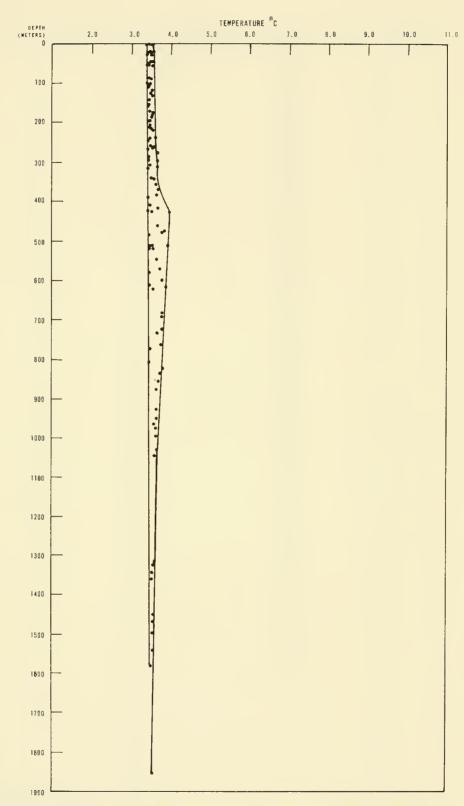


Figure 15. Envelope of temperature versus depth at oceanographic stations taken by USCGC BIBB at Ocean Station BRAVO, 24 February-14 March 1967.

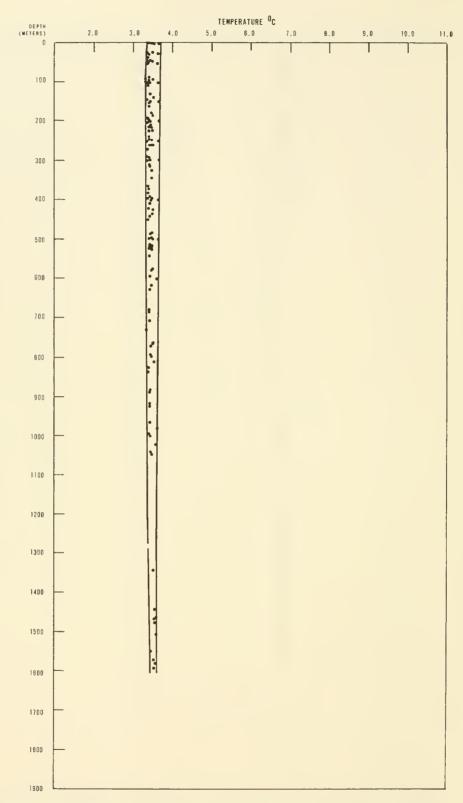


Figure 16. Envelope of temperature versus depth at oceanographic stations taken by USCGC ESCANABA at Ocean Station BRAVO, 6-24 April 1967.

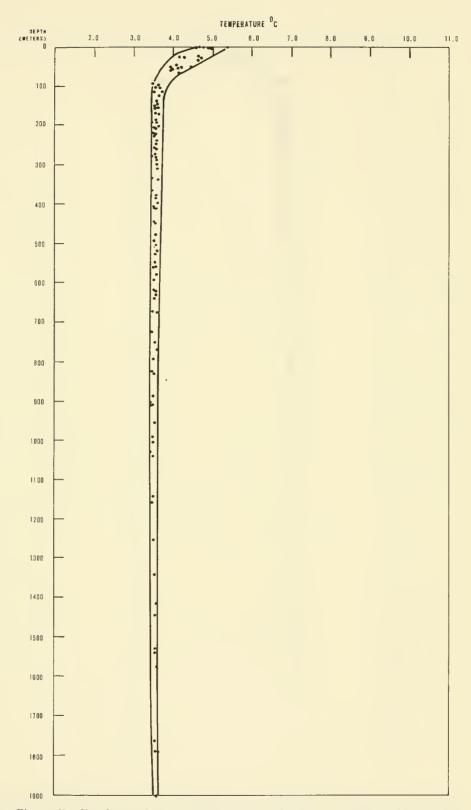


Figure 17. Envelope of temperature versus depth at oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 27-6 June 1967.

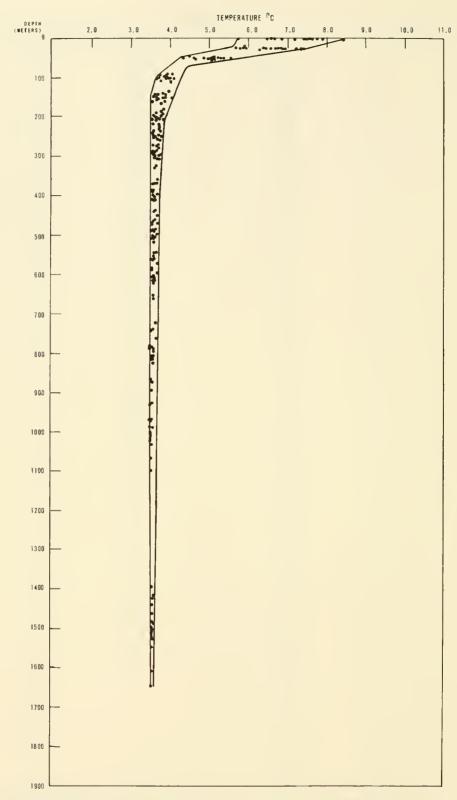


Figure 18. Envelope of temperature versus depth at oceanographic stations taken by USCGC SEBAGO at Ocean Station BRAVO, 29 June-21 July 1967.

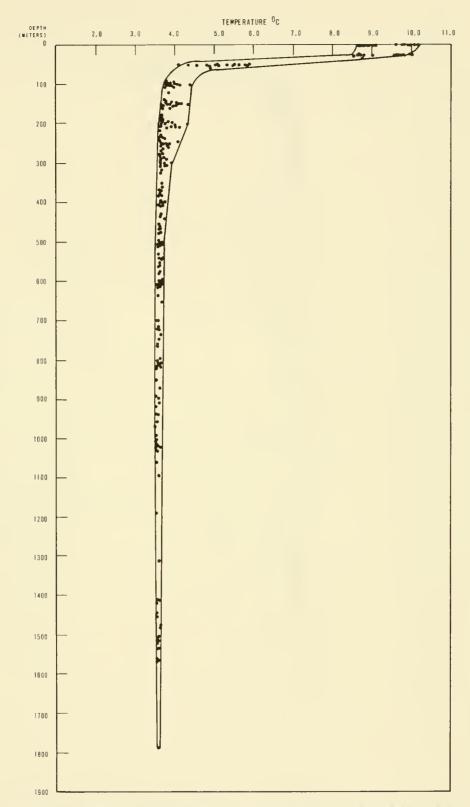


Figure 19. Envelope of temperature versus depth at oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 14 August-5 September 1967.

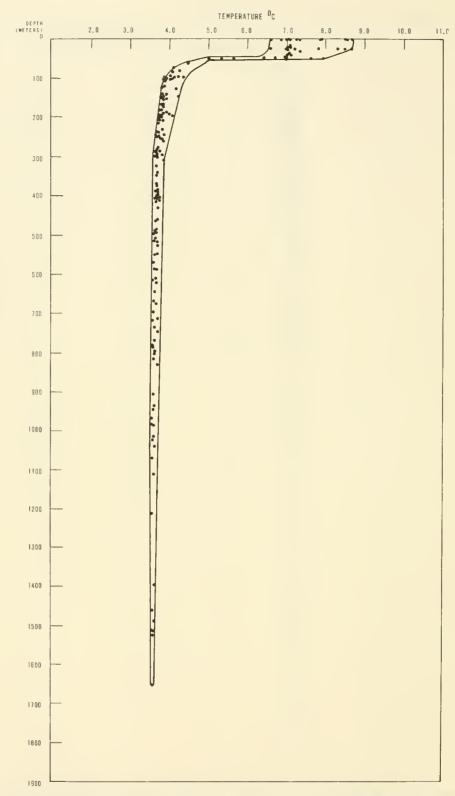


Figure 20. Envelope of temperature versus depth at oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 1-20 October 1967.

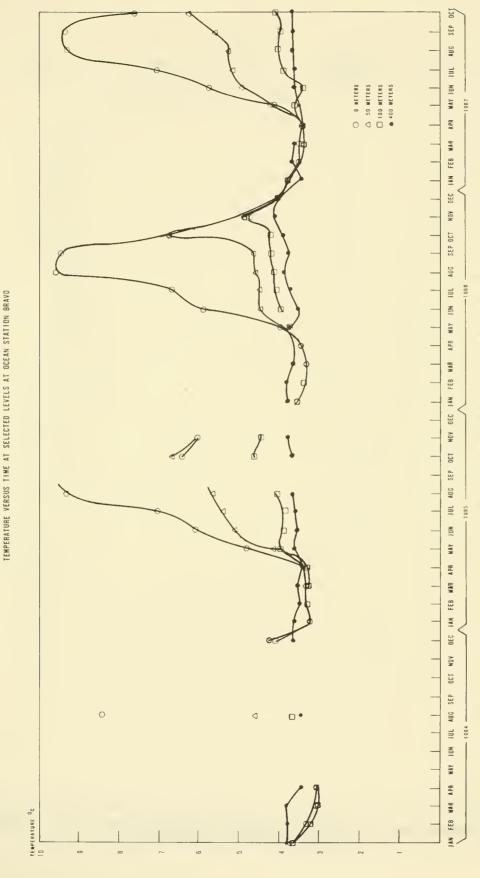


Figure 21. Monthly averages of water temperature versus time at selected depths at Ocean Station BRAVO, January 1964-October 1967.

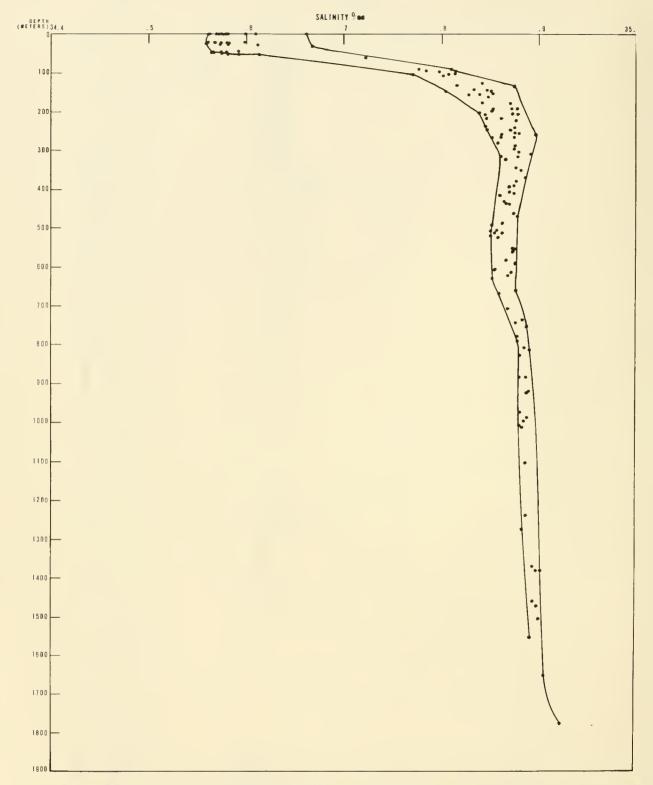


Figure 22. Envelope of salinity versus depth at oceanographic stations taken by USCGC DUANE at Ocean Station BRAVO, 8-28 October 1966.

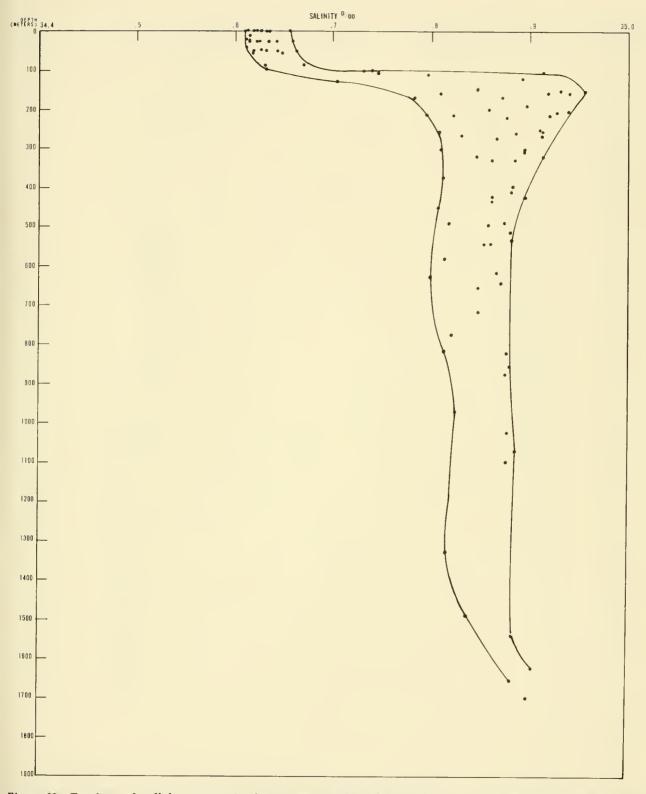


Figure 23. Envelope of salinity versus depth at oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 24 November-12 December 1966.

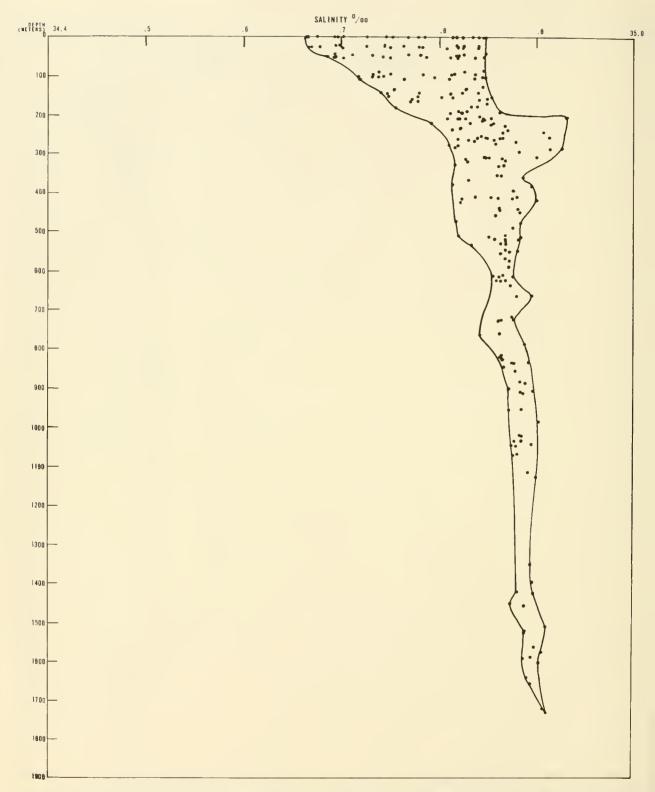


Figure 24. Envelope of salinity versus depth at oceanographic stations taken by USCGC HUMBOLDT at Ocean Station BRAVO, 7-31 January 1967.

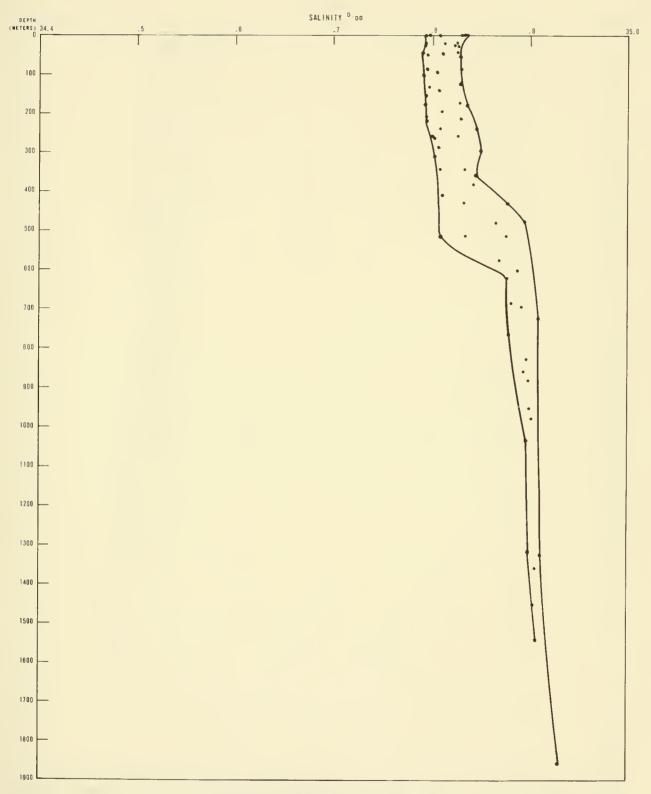


Figure 25. Envelope of salinity versus depth at oceanographic stations taken by USCGC BIBB at Ocean Station BRAVO, 24 February-14 March 1967.

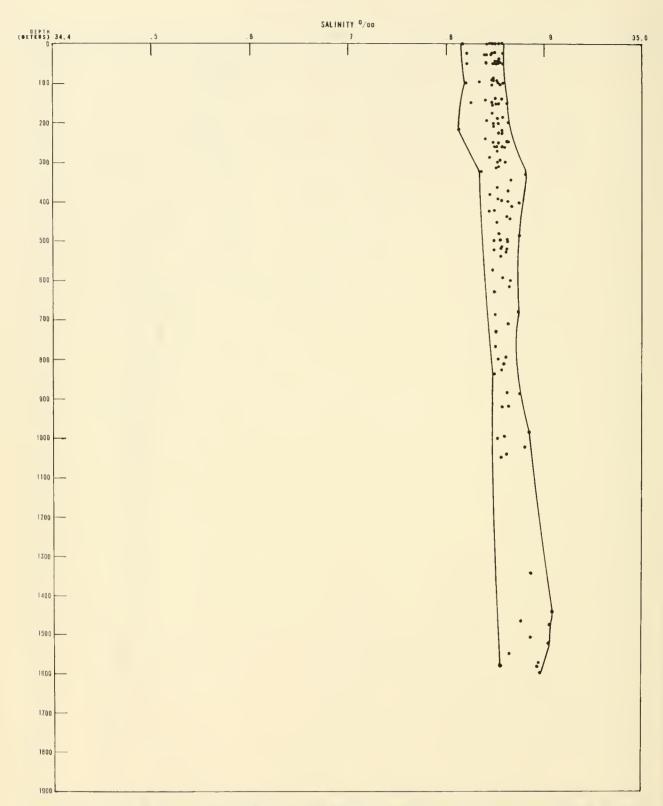


Figure 26. Envelope of salinity versus depth at oceanographic station taken by USCGC ESCANABA at Ocean Station BRAVO, 6-24 April 1967.

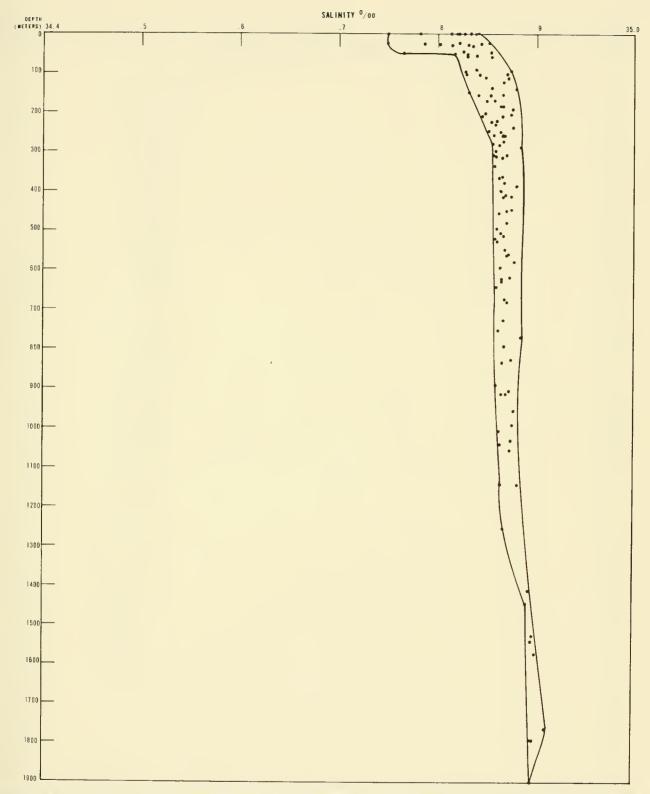


Figure 27. Envelope of salinity versus depth at oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 27 May-6 June 1967.

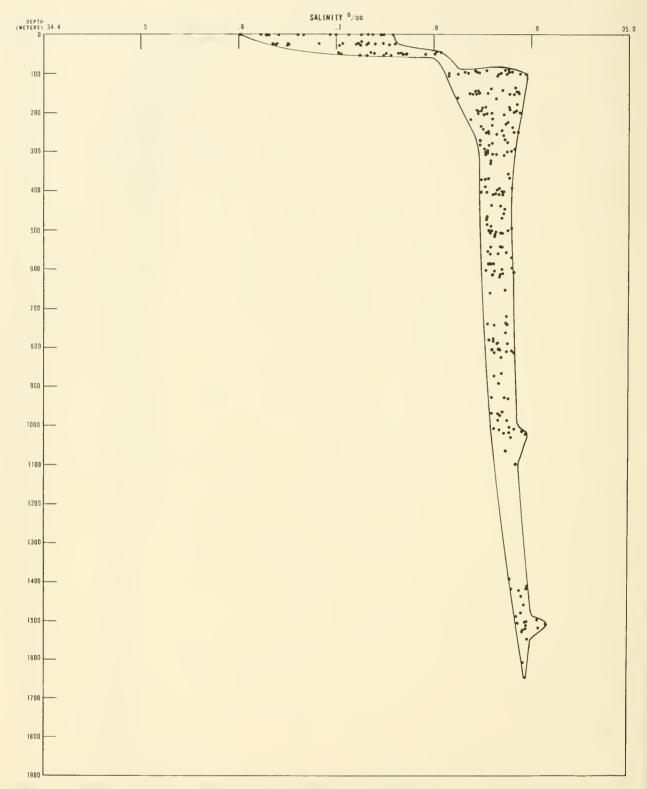


Figure 28. Envelope of salinity versus depth at oceanographic stations taken by USCGC SEBAGO at Ocean Station BRAVO, 29 June-21 July 1967.

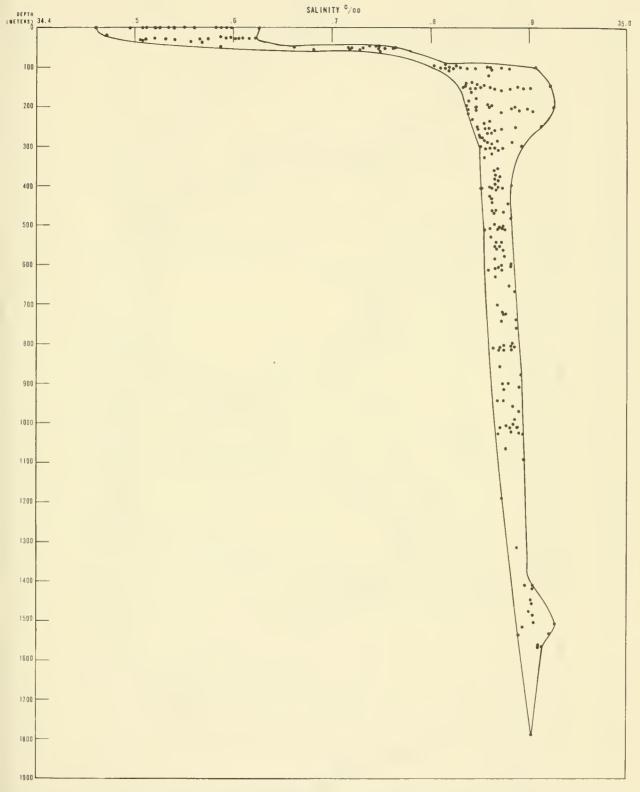


Figure 29. Envelope of salinity versus depth of oceanographic stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 14 August-5 September 1967.

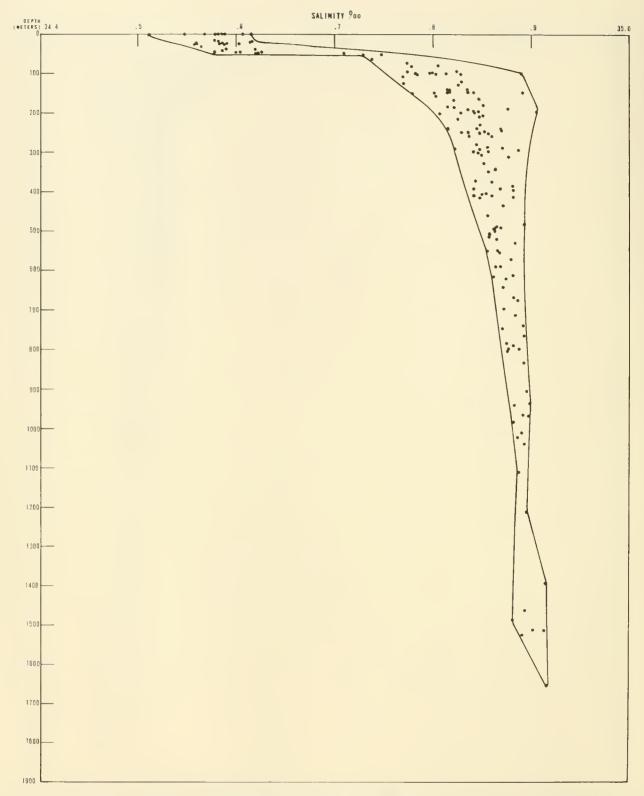
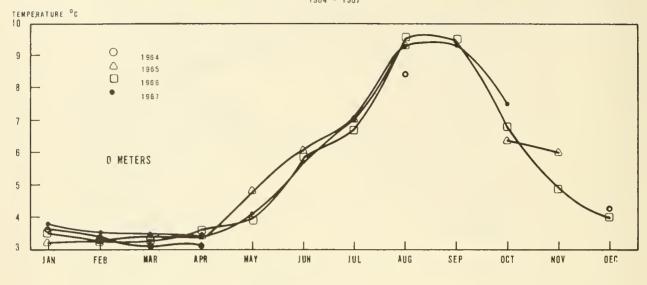
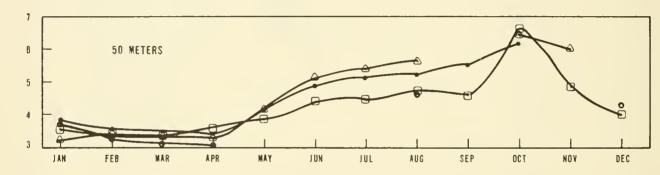


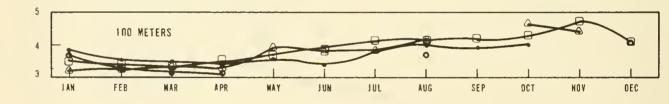
Figure 30. Envelope of salinity versus depth of oceanographic stations taken by USCGC SPENCER at Ocean Station BRAVO, 1-20 October 1967.

SALINITY VERSUS TIME AT SELECTED LEVELS AT OCEAN STATION BRAVO

Figure 31. Monthly averages of salinity versus time at selected depths at Ocean Station BRAVO, January 1964-October 1967.







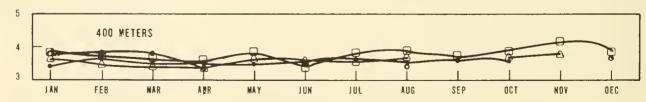


Figure 32. Monthly averages of water temperature versus time by depth at Ocean Station BRAVO, January 1964-October 1967.



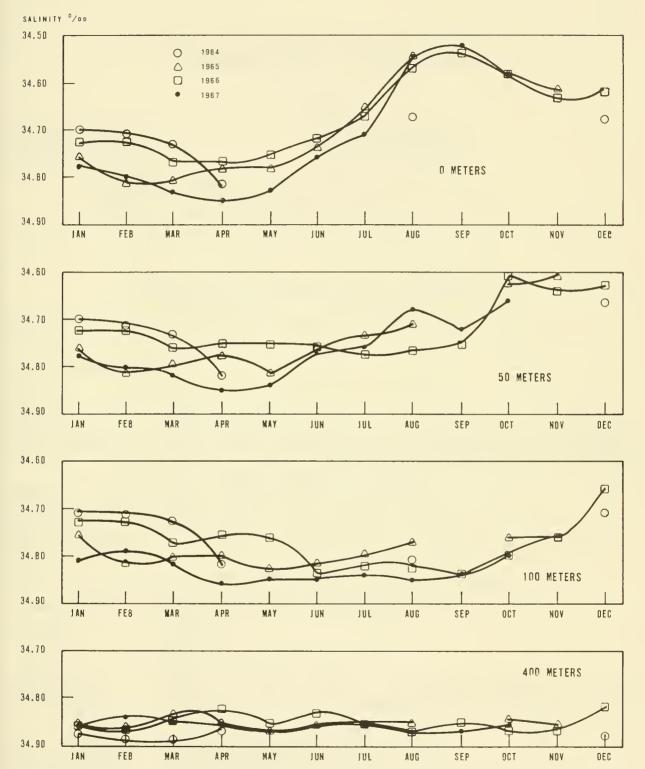


Figure 33. Monthly averages of salinity versus time by depth at Ocean Station BRAVO, January 1964-October 1967.



# Oceanographic Station Data

### TABLES

Notes on oceanographic data:

DU=USCGC DUANE ML=USCGC McCULLOCH HU=USCGC HUMBOLDT

BX = USCGC BIBB

EN=USCGC ESCANABA SC=USCGC SPENCER SB=USCGC SEBAGO

T=Thermometric depths

Q=Indicates value was noted as doubtful by originator

P=Indicates value has been designated as potentially Implausible by NODC

Weather Symbols = Reported in WMO scales (USWB 1960)

## Explanation of Oceanographic Station Data

### A. Description of Entries, Unit and Codes on NODC Station Listing

#### 1. Surface Observations

Entry Description of Field

NODC REF. ID. NO.

NODC reference identity number.

COUNTRY CODE CRUISE NUMBER Indicates nationality of the institute or agency conducting the survey or expedition. A reference number assigned by NODC for storage-retrieval purposes. NODC Publication C-I, Reference Source of Oceanographic Station Data, give complete bibliographic

and other pertinent information for each cruise.

SHIP CODE

Alphabetic representation of ship's name (or ICES numeric ship code).

LATITUDE

1°

Degrees, minutes, and tenths of minutes, N or S. Degrees, minutes, and tenths of minutes, E or W.

LONGITUDE DRIFT INDICATOR

The letter D appears in this column if extensive drift occurred while on station.

MARSDEN SQUARE

10°

Marsden square number according to the Marsden square system.

The one-degree square number according to the Marsden square system.

STATION TIME (GMT)

Date and time given by the originator (GMT).

MONTH

Month (GMT). Day (GMT).

DAY HR. 1/10

GMT to nearest tenth of an hour.

YEAR

Vear

ORIGINATOR'S CRUISE NUMBER Alphabetic or alpha-numeric designator as assigned by the originator. If the year of the cruise forms part of the cruise numbering system, the year digits are found in

preceding field.

STATION NUMBER

Originator's station number or designator.

DEPTH TO BOTTOM

Corrected or uncorrected sounding depth in meters.

MAX. DEPTH OF

Depth of deepest sample in hundreds of meters to nearest hundred-meter interval.

SAMPLES

WAVE OBSERVATIONS Direction from which the dominant waves are coming, in tens of degrees, according to

DIR. WMO Code 0885.

HGT. Height of dominant waves according to WMO Code 1555.

PER. Period of dominant waves according to WMO Code 3155.

SEA AMT. Sea amount (sea state) according to WMO Code 3700 (preceded by the letter A).

WEATHER CODE If preceded by the letter X, weather according to WMO Code 4501. A numeric two-digit

entry indicates weather according to WMO Code 4677.

\*INSTR./CLOUD This field is used either for recording instrument code when electronically obtained data

are being reported, or for reporting cloud type and cloud amount when conventional

Description of Field

Nansen cast data are being reported.

\*INSTR. A two character code representing insturment package of system.

TYPE Cloud type according to WMO Code 0500.

AMT. Cloud amount according to WMO Code 2700.

NODC STATION

Assigned by NODC for data storage and retrieval purposes. The NODC Reference

NUMBER

Identity and Station numbers combined, uniquely define each station in the NODC ar-

chives.

\*DT/\*SU/D This indicator specifies that the reported data have been obtained electronically rather

than by Nansen-type casts. U (up) and D (down) are cast indicators for electronically obtained serial data and specify that the data were taken while hoisting or lowering

respectively.

WATER COLOR Water color according to Forel-Ule Code.

TRANS. (m) Water transparency in meters as determined by Secchi disc.

WIND DIR. Direction from which wind is blowing in tens of degrees, according to WMO Code 0877.

SPEED OR FORCE If preceded by letter S, wind speed in knots; if preceded by letter F, wind force in

Beaufort code.

BAROMETER (mbs) Barometric pressure in millibars; tens, units, and tenths places only.

AIR TEMPERATURE C°

DRY BULB Dry bulb air temperature in degrees centigrade, to tenths.

WET BULD Wet bulb air temperature in degrees centigrade, to tenths.

VIS. CODE Visibility according to WMO Code 4300.

NUMBER OBS. LEVEL The number of observed levels associated with the station.

SPECIAL OBSERVA- Entries in this space vary with individual cruises or stations. Information concerning

TIONS entries in this field can be requested from the NODC.

2. A complete description of the codes can be found in NODC publication M-2 (Rev. August 1964), "Processing Physical and Chemical Data From Oceanographic Stations."

Table 1. Observed and interpolated oceanographic data for stations taken by USCGC DUANE Ocean Station BRAVO, 8-28 October 1966, prepared from NODC listing No. 31-771 DU.

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		12	1	QB:	-	101		0403		814		66						684										
				S'	TD 0	125		0410	34	83	27	66	000	451	6 0	094	14	691										
				S:	TD 0	150		0417	34			67	000	446	2 0	106		698										
		12	1	QB:	-	152		0417	34	853		67					14	699										
				S		200		0414	34	-		69	000	434	0 0	128		706										
		12	1	085		205		0414	_	873		69						707										
				SI		250		0408	34			70	000	427	4 0	149		711										
		12	1	08		254		0407	34	876		70	000	424	0 0	170		712										
		12	1	S1 085		300 304		0403		880		71	000	727	0 0	170		718										
		12	1			+00		386	34			72	000	422	6 0	213		727										
		12	1	QB:		+05		385		870		72			• •			727										
						500		371	34	85	27	72	000	429	7 0	255	14	737										
		12	1	OB:	S 0	05		0370	34	851	27	72					14	737										
						500		0365		86		73	000	430	1 0	298		751										
		12	1	OB:		505		0365		855		73						752										
				_		700		0367	34			74		429		341		769										
		1.3	,			300		0369		89		75	000	429	1 0	384		786										
		12	1	OB:		306 900		0369	_	886		75	000	432		427		787 801										
				_		000		0364		88 88		76		436		421 471		815										
		12	1	OB:		006		0358		881		76	000	750		-11		816										
			•			100		0357		88		76	000	441	6 0	515		1684										
				_		200		0355	-	89		76		446		559		847										
				_		300		0354	34			77		451		604		864										
						+00		352	34	89		77	000	456	1 0	649	14	880										
						500		0351	34			77	000	460	8 0	695		896										
		12	1	08:	S T1	552	. (	0350	34	892	27	77					14	905										

REFERENCE SHIP	TITUOE LO	NGITUOE TOUTION	MARSDEN	STATION TIME	YEAR	ORIGINAT		DEPTH OF	AX, PTN O	WAVE RSERVATIONS	WEA-	CLOUG			1000
CODE NO. CODE	1/10	1/10		MO LOAY HR.I			rion Arer	2077011	PL'S DIR		THER		-		NOITA1
31 771 DU 56				10 15 19		058 004			14 24		X2	7 8	1		2001
31  111  00   30.	23314   02	032041 1	WAT		0	A ID TEAAR		Lug		14 18 1	1 12	1 / 18	1	1	0004
			COLOR		PEED MET	ER DRY V	VET CODE	OBS. OBS	SPECIAL ERVATION	s					
			COOE	lm) F	ORGE (mb		ULB	UEFINS							
				23 S	12 11	2 056 0	144 7	14							
MESSENGE CA	CARD TYPE	OEPTH (m)	ī ℃	s */a.	SIGMA-T	SPECIFIC VOLUME	₹ △ o	SOUND	O <sub>2</sub> ml	/I PO4-P	TOTA L-P	NO2-N	ио₃~и	SI O <sub>4</sub> —Si	pN
HR 1/10	7. 1176					ANOMACI-ATO	X 10 <sup>3</sup>	VELOCITY		pg - at/1	µg = α1/3	1/10 - gu	yg - al/l	yg = a1/l	,,,,
	STO	0000	0707		2711	0009586	0000								
195	OBS	0000	0707	34599	2711			14788							
	STD	0010	0707	3460	2711	0009597	0010								
195	STO OBS	0020 0023	0706 0706	3460 34598	2711 2711	0009614	0019								
195	510	0030	0706	34598	2711	0009648	0029	14791							
195	OBS	0045	0707	34591	2711	0009648	0029	14795							
272	STD	0050	0659	3462	2720	0008882	0047								
	STO	0075	0478	3475	2752	0005789	0066								
195	OBS	0090	0416	34810	2764	0007.07		14688							
	STD	0100	0425	3483	2765	0004650	0079								
	STD	0125	0439	3487	2766	0004524	0090	14704	+						
195	085	0135	0440		2767			14706	5						
	STD	0150	0432	3487	2767	0004446	0101								
195	085	T0177	0422	34871	2768			14705							
1.00	STD	0200	0417	3487	2769	0004338	0123								
195	085	0221	0414	34877	2770		-)	14709							
100	STO	0250	0411	3488	2770	0004310	0145								
195	OBS STD	0266 0300	0410 0408	34875 3488	2770 2770	0004300	01/7	14715							
195	085	T0350	0401		2771	0004298	0167	14720							
175	STD	0400	0383	3487	2772	0004201	0209								
195	085	0436	0375		2773	0007201	0209	14728							
	STD	0500	0374	3486	2772	0004270	0251	14738							
195	085	T0524	0373		2772			14742							
	STD	0600	0370		2773	0004294	0294								
	STD	0700	0366	3487	2774	0004293	0337	14768	3						
195	OBS	0706	0366		2774			14769	7						
	STD	0800	0366		2775	0004296	0380								
195	085	T0882	0366		2775			14799							
	STD	0900	0366	3489	2775	0004322	0423								
	STD	1000	0365	3489	2776	0004381	0467								
	STD	1100	0363	3489	2776	0004433	0511	14834							
	STO	1200	0360	3489	2776	0004466	0555	14850							
195	STD OBS	1300	0356	3489	2777	0004491	0600	14865							
195	005	1369	0353	34895	2777			14875	)						

CE			- 1	MAR	SOEN	TATZ	ON T	IM E		ORM	GINAT	OR'S	LOE	PTN M	AX.	WAVE	WEA	cloud	1		NOOC	7
O. SHIP		UOE	LONGITUDE	squ	ARE	(	GMTI		YEAR	CRUISE		TION	1 1	0	OF I	SERVATIONS	THER	COGES		2	TATION	
10.		1/10	1/10	10°	1.	MO C	AY H	R.1/10		NO.	NU	MBER	BOT	N'2	APL'S DIR.	HGT PER SI	COOL	TYPE AM	7	- "	UMBER	-
771 DU	562	15N (	050510W	186	60	10 1	7	159 1	966	QSB (	005		36	12 :	36 33	2 2	X1	8 6			0005	
, .		,		•	WA	TER	٧	VIND	BAR	O- AIR	TEMP	. °C VIS	. N	0.	SPECIAL							
					COLOR	TRANS.	OIR.	SPEED	METI	ER ORY		WET COS		22.   VBC	SERVATION S	;						
					COOE	(m-)	-	FORCE	(mbi	_	_	BULB				4						
							14	503	17	3 050	' ا	039 8	1	9		<u> </u>						
WESSE	NGR CAST	CARD		Ι.	- m		.,			SPECIFIC V	OLUME	₹ A C	2	SOUNG	0	, PO4-P	TOTAL-P	NO2-N	NO3-N	SIO4-Si		
HR 1	E P NO.	TYPE	DEPTH (m)	'	°C	,	٠/	SIGM	A-I	ANOMALI	-X107	X 10 <sup>3</sup>	ñ.	VELOCIT	Y 02 ml	μg • σt/l	µg • 01/1		νg - σ1/I	µg - o1/1	pH	
148 1	710			-		+		_									-			-		П
ı	- 1	ST	0000	' 0	666	345	86	271	.5	0009	209	0000	o '	1477	2	1	1	1	'	1	'	
1	21	OBS	0000		666		78	271						1477	2							
	_	STI	0010		666	345	8	271	6	0009	209	000	9	1477	3							
		STI	0020	0	666	345		271		0009	225	001	8	1477								
1	21	OBS	0025		666		82	271	-					1477								
		ST			666	345		271		0009	_	002	-	1477								
		ST			1667	345		271		0009	200	004	6	1478								
1	21	OBS			667		92	271		0006	E /. 7	004	,	1478								
		ST			519	346		274		0006		006		1472								
1	21	0BS	0103	-	408		308	276		0004		000	0	1468								
	121	ST			1406	344		276		0004	549	009	2	1468								
		ST			404	34		276		0004		010		1469								
1	21	OBS	0155		404	-	339	276						1469								
	1	ST			413	341		276		0004	326	012	5	1470								
1	121	OBS			415	34	879	271	70					1470	7							
		ST	D 0250		428	34	89	276	9	0004	357	014	6	1472								
1	121	OBS			1429		897	276						1472								
		ST			1421	34		277		0004	340	016	8	1472								
1	121	085			419		892	277				1		1472								
		ST			392	34		271		0004	223	021	Ţ	1473								
,	121	085			390		875	271		0004	201	025		1473								
,	121	ST OBS			376	34	855	271		0004	271	025	7	1474								
,	121	ST			368	34		27		0004	219	029	6	1475								
1	121	OBS			367		372	27		0004		02,	•	1475								
		ST			367	34		27		0004	225	033	8	1476								
		ST		C	368	34	39	27	75	0004	243	038	1	1478	6							
1	121	OBS			368		891	27						1478								
		ST			364	34		271		0004				1480								
		ST			359	34		271		0004	342	046	7	1481								
1	121	085			358	34	884	27		0004	3 4 7	051	^	1481								
		ST ST			357	34		27		0004				1484								
		ST			354	34		27		0004				1486								
		ST			353	34		27		0004				1488								
		ST			351	34		27		0004				1489								
1	121	085			351		901	27						1489								
		ST			350	34	91	27	79	0004	647	080	4	1493	8							
		ST			348	34		27		0004	747	092	1	1498								
1	159	OBS			348		924	27						1498								
		ST			0316	34		27		0004	608	115	5	1505								
	159	OBS			315		926			000		3.40	^	1505								
	150	ST			283	34		271		0004	405	138	Ų	1512								
	159 159	08S			281		931 946	27						1512								
	159	085	3574	(	184	34	954	27	7 /					1518	3							

CTRY ID.	SHIP	LATITUO	E LO	NGITUOE JOURIL	MARSOEN	STATION T	IME YEAR	ORIGINA	ATOR'S	DEPTH	MAX. DEPTH		WAVE	WEA				NODC	1
CODE NO.	CODE		1/10	1/10	10°   1°	MO DAY I			I A TION U M BER	TO MOTTOB	OF S'MPL'S		ERVATIONS	000				TATION	1
31 771	1 00	5628	N 05	5112 W	186 61		125 1966			2(12			HGT PER S	· ·	TTPE AM	1		CONTOCK	-
							VIND	A IO TEA		3612	14	14	4 4 4	X2	5 8	-		0006	1
					COLO		SPEED MET	ER ORY	WET COD	d OK2	SPEC ORSERVA	IAL							
					COO	E (m)	FORCE (mb	e) BULB	BULB	DEPTHS									
						10	\$15 09	5 078	072 7	14									
	MESSENGR TIME		CARD	DEPTH (m)	1 10	s ·/	SIGMA-T	SPECIFIC VOLUM		sou	NO		PO4-P	TOTAL-P	NO <sub>2</sub> -N	NO3-N	SI O4-Si		Τ,
	HR 1/10	1 110.	TTPE				Juliani	ANOMALY-X10	X 10 <sup>3</sup>	, AEFO	CITY	O2 ml/l	yg - a1/1	μg - bi/l	ug - at/	PG - 01/1	yg - al/		0
	1														1			-	+
			STD	0000	0661	3457	2715	0009213	0000	147	770			1	!		1	1	- 1
	125	•	OBS	0000	0661	34569	2715			147	770								
			STD	0010	0661	3457	2715	0009222											
	125		085	0020	0660 0660	3457 34568	2715 2715	0009240	0018	-									
			STD	0030	0660	3450	2715	0009227	0020	147									
	125	5	085	0048	0659	34579	2716	000722	7 0028	147									
			STO	0050	0644	3459	2719	0008914	0046										
			STD	0075	0489	3474	2750	0005985											
	125	j .	085	0096	0411	34814	2765			146									
			STD	0100	0411	3482	2765	0004580	0078	146	87								
	125		STD	0125	0411	3484	2767	0004455	0089	_									
	123	,	STD	0144 0150	0409	34847	2768			146									
	125		085	10193	0407	3485 34853	2768	0004364	0100	_									
			STD	0200	0400	3486	2769 2 <b>77</b> 0	0004265	0122	146									
	125	ı	085	0240	0399	34876	2771	0004263	0122	147									
			STD	0250	0398	3488	2771	0004173	0143										
	125		085	0287	0394	34876	2772		0243	147									
			STO	0300	0394	3488	2772	0004179	0164										
	125		085	10379	0388	34877	2772			147	24								
	125		STD	0400	0385	3488	2773	0004170	0205	147	27								
	125	'	OBS	0470 0500	0376 0374	34879 3488	2774	0001310		147									
	125		OBS	0560	0370	34874	2774 2774	0004143	0247	147									
			STD	0600	0367	3488	2774	0004171	0300	147									
			STD	0700	0362	3488	2775	0004171		147									
	125		085	0742	0360	34877	2775	0001177	0230	147									
			STD	0800	0359	3488	2775	0004213	0372	147									
			SID	0900	0358	3489	2776	0004233		147									
	125		OBS	10922	0358	34889	2776			148									
			STD	1000	0357	3489	2776	0004287		148									
			STD	1100	0356	3490	2777	0004284		148	31								
			STD	1200	0355	3490	2777	0004353		148									
	125		51D 085	1300 1378	0354	3490	2778	0004422	0587	148									
			V03	1510	0353	34903	2778			148	77								

	IO. NO.	SHIP	LATITU	1/10	LONGITUGE 6	SQL SQL	SOEN JARÉ	STATIO IG:	MT)	YE,	AR CRUI		ATION UMBER	TO BOTTOM	MAX. OEPTN OF S'MPL'S		WAVE SERVATIONS [HGT] PER   SE	WEA THE	CODE	2	S	NOOC TATION LUMBER
,	771	Du	5627	N	05022 W	186	60	10 23	3 12	7 19	66 OS	в 00	,	3603	16	24	3 3	X1				0007
-1		1 00 1	,		.,	1	WA		WIN	D 1	BARO.	AIR TEN	P. 10	NO.			12121	1 / 1	1 212	1	- 1	0007
							COLOR		JIR.	SPEED ,	METER	DRY	WET COD	ORS.	OBSERV.	ATIONS						
							COOF	[m]	- 1	ORCE	(mbs)	anra	BULR	OEPTHS								
								1	22   5	05	244	072	050 7	14								
		MESSENGR TIME d	CAST	CAR	DEPTH (m)	١,	70	5 ./	[	SIGMA-	-T SPECI	TC VOLUM	AE E A D	soc	JND	O2 ml/l	PO <sub>4</sub> -P	TOTAL-		NO3-N	SI O4-St	рН
		HR 1/10	1	TYPE	•						^***	WWF1-110	X 10 <sup>3</sup>	VELO	OCITY		μg • α1/1	/61 - ولا	µg - at/l	μg - σ1/I	yg - at/l	pri
				\$1			683	3458		2713		0942	0000	14	778		'					
		127	•	085			683	345		2713					778							
				SI			680	3458		2714		09390			779							
		,	,	57			678	3454		2714		09380	0019		780							
		127		085			677	3450		2714					780							
				ST	-		678	3458		2714		0938			781							
		127		51 085			681	3458		2714 2714	00	0946	0047		786 786							
		121		51			531	3468		2741	00	06909	0067		731							
				ST			425	3476		2759		05175			692							
		127		085			413	3477		2761	00	0011.	0000		688							
				SI			406	3480	_	2764	00	04704	0095		689							
				ST			400	3482		2766		04517			691							
		127		085			399	3482		2767			0-00		692							
				ST			397			-,0,												
		1 27								2768		04387	0129		698							
		127				0	397	3484		2768 2769		04387	0129	14	698							
		127		085	T0209				45	2768 2769 2770	00	04387 04272		14	700							
		127		085	T0209 D 0250	0	397	3484	45 5	2769	00			14: 14: 14:								
				08s	T0209 D 0250 0266	0	397 396	3484 3486	45 5 1	2769 2770	00		0150	14 14 14	700 706							
				08S ST 08S ST 08S	T0209 D 0250 0266 D 0300 0324	0	397 396 395 394 393	3484 3486 3486 3486 3486	5 5 5 6 6	2769 2770 2770 2771 2771	00	04272	0150	14 14 14 14	700 706 708							
		127 127		085 ST 085 ST 085	T0209 D 0250 0266 D 0300 0324 0 0400	0	397 396 395 394 393 381	3484 3486 3486 3486 3486 3487	45 5 1 5 6 7	2769 2770 2770 2771 2771 2772	00	04272	0150	14 14 14 14 14	700 706 708 714							
		127		085 085 51 085 51 085	T0209 D 0250 0266 D 0300 0324 O 0400 T0438	0000	397 396 395 394 393 381 377	3486 3486 3486 3486 3486 3487 3487	5 5 5 6 7 7	2769 2770 2770 2771 2771 2772 2772	00	04272 04269 04187	0150	14 14 14 14 14 14 14	700 706 708 714 717 725 729							
		127 127 127		085 ST 085 ST 085 ST 085	T0209 D 0250 0266 D 0300 0324 O 0400 T0438 D 0500	0	397 396 395 394 393 381 377 374	3484 3486 3486 3486 3487 3487 3487	45 5 6 7 70	2769 2770 2770 2771 2771 2772 2773 2773	00	04272	0150	14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738							
		127 127		085 ST 085 ST 085 ST 085	T0209 D 0250 0266 D 0300 0324 D 0400 T0438 D 0500 0550	0000	397 396 395 394 393 381 377 374 372	3486 3486 3486 3486 3487 3487 3487	45 5 6 7 7 7 7	2769 2770 2770 2771 2771 2772 2773 2773 2774	00	04272 04269 04187	0150	14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746							
		127 127 127 127		085 51 085 51 085 51 085 51 085	T0209 D 0250 0266 D 0300 0324 D 0400 T0438 D 0500 0550 0 0600	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372	3486 3486 3486 3486 3487 3487 3487 3487	45 5 6 7 7 7 7 7 4	2769 2770 2771 2771 2771 2772 2773 2774 2774	00	04272 04269 04187	0150	14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746							
		127 127 127		08S ST 08S ST 08S ST 08S ST 08S	T0209 D 0250 0266 D 0300 0324 D 0400 T0438 D 0500 0550 O 0600	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372	3486 3486 3486 3486 3487 3487 3487 3487 3487	55 51 56 7 770 74 3	2769 2770 2770 2771 2771 2772 2773 2773 2774 2774 2774	00	04272 04269 04187 04180	2 0150 0172 0214 0256 0298	14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 754							
		127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST	T0209 D 0250 0266 0300 0324 0 0400 T0438 D 0500 0550 0 0600 0660 D 0700	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372 371 368	3486 3486 3486 3486 3487 3487 3487 3488 3487 3488	55 55 66 77 70 74 74	2769 2770 2771 2771 2771 2772 2773 2773 2774 2774 2774 2775	00	04272 04269 04187 04180 04229	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340	14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 754 764							
		127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S	T0209 D 0250 0266 D 0300 0324 0 0400 0400 0550 0 0600 0660 D 0700 D 0800	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372 371 368 363	3484 3486 3486 3486 3487 3487 3487 3488 3488 3488	55 56 77 70 74 3	2769 2770 2771 2771 2771 2772 2773 2774 2774 2774 2774 2775 2775	00	04272 04269 04187 04180	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340	14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 754 764 769							
		127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S	T0209 D 0250 0256 D 0300 0324 T0438 D 0500 0550 0 660 0 0660 D 0700 0881	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372 371 368 363 360	3486 3486 3486 3486 3487 3487 3487 3488 3488 3488	551 567 770 774 33 3331	2769 2770 2771 2771 2771 2772 2773 2774 2774 2774 2775 2775 2775	00	04269 04187 04180 04180 04229 04232 04261	2 0150 0172 7 0214 0 0256 0 0298 2 0340 0 0383	14 14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 754 769 784							
		127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S ST ST	T0209 D 0250 0266 D 0300 0324 0 0400 T0438 D 0500 0550 0600 0660 D 0700 D 0800 0881 D 0900		397 396 395 394 393 381 377 374 372 372 371 368 363 360 360	3486 3486 3486 3486 3487 3487 3488 3488 3488 3488	551 566 770 774 33 33 33 31	2769 2770 2771 2771 2771 2772 2773 2774 2774 2774 2775 2775 2775 2776	00	04269 04187 04180 04180 04225 04232 04261	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340 0 0383	14 14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 754 769 784 796							
		127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S ST 51	T0209 D 250 0266 D 0300 0324 0 0400 T0438 D 0500 0660 0660 0660 0681 D 0700 D 0800 0881 0 0900 D 1000		397 396 395 394 393 381 377 374 372 372 371 368 363 360 360 358	3486 3486 3486 3486 3487 3487 3488 3488 3488 3488 3488	551 566 770 774 33 33 33 33	2769 2770 2771 2771 2771 2772 2773 2773 2774 2774 2775 2775 2775 2776 2776	00	04269 04187 04180 04180 04225 04232 04261 04294	2 0150 0172 7 0214 0 0256 0 0298 2 0340 0 0383 0 0425 0 0469	14 14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 7754 764 7764 796 799 815							
		127 127 127 127 127		085 51 085 51 085 51 085 51 085 51 085 51 51	T0209 D 0250 0266 D 0300 T0408 T0438 D 0500 0550 0 6600 0660 D 0800 0881 D 0900 D 1000	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372 371 368 360 360 358 356	3486 3486 3486 3486 3487 3487 3488 3488 3488 3488 3488 3488	45 51 56 77 77 74 33 33 33 33	2769 2770 2771 2771 2771 2772 2773 2773 2774 2774 2775 2775 2775 2776 2776 2776	00	04269 04187 04180 04180 04225 04232 04261	2 0150 0172 7 0214 0 0256 0 0298 2 0340 0 0383 0 0425 0 0469	14 14 14 14 14 14 14 14 14 14 14 14	700 706 708 714 717 725 729 738 746 754 764 796 799 815 831							
		127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S ST 08S ST 08S	T0209 D 0250 0266 D 0300 T0438 D 0500 0550 0660 D 0700 0800 0881 D 0900 0 1000 T1102	000000000000000000000000000000000000000	397 396 395 394 393 381 377 374 372 372 371 368 360 360 358 356	3486 3486 3486 3486 3487 3487 3488 3488 3488 3488 3488 3488	445 55 77 77 77 77 77 77 77 77 77 77 77 77	2769 2770 2771 2771 2771 2772 2773 2774 2774 2774 2775 2775 2775 2776 2776 2776	00 00 00 00 00 00 00 00 00 00 00 00 00	04272 04269 04187 04180 04225 04232 04261 04294 04379	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340 0 0383 6 0425 0 0469 0 0512	14- 14- 14- 14- 14- 14- 14- 14- 14- 14-	700 706 708 714 717 725 738 746 754 769 784 7799 815 831							
		127 127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S ST 08S ST ST	T0209 D 0250 0266 D 0300 0324 0 0400 0550 0600 0600 0600 D 0700 D 0800 0 0881 D 0900 0 1000 T1102 0 1200		397 396 395 394 393 381 377 374 372 371 368 360 358 356 356 355	3486 3486 3486 3487 3487 3487 3488 3488 3488 3488 3488	77777777777777777777777777777777777777	2769 2770 2771 2771 2771 2772 2773 2774 2774 2774 2775 2775 2775 2776 2776 2776 2776 2776	00	04272 04269 04187 04180 04225 04232 04232 04234 04379	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340 0 0383 0 0425 0 0469 0 0512	14- 14- 14- 14- 14- 14- 14- 14- 14- 14-	700 706 708 714 717 725 738 746 754 769 784 799 831 831 847							
		127 127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S ST 08S ST 08S	T0209 D 0250 0256 D 0300		397 396 395 394 393 381 377 372 372 371 368 360 356 356 356 355 353	3486 3486 3486 3488 3488 3488 3488 3488	77777777777777777777777777777777777777	2769 2770 2771 2771 2771 2772 2773 2774 2774 2775 2775 2776 2776 2776 2776 2776 2777	00	04272 04269 04187 04180 04225 04232 04261 04294 04341 04379	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340 0 0383 0 0425 0 0425 0 0425 0 0425	14- 14- 14- 14- 14- 14- 14- 14- 14- 14-	700 706 708 714 717 729 738 746 756 4776 799 813 813 831 847 863							
		127 127 127 127 127		08S ST 08S ST 08S ST 08S ST 08S ST 08S ST ST 08S ST ST	T0209 D 0250 0266 D 0300 T0438 D 0500 0550 0 6600 0660 D 0800 0881 D 0900 D 1100 T1102 D 1200 D 1300 D 1400		397 396 395 394 393 381 377 374 372 371 368 360 358 356 356 355	3486 3486 3486 3487 3487 3487 3488 3488 3488 3488 3488	33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2769 2770 2771 2771 2771 2772 2773 2774 2774 2774 2775 2775 2775 2776 2776 2776 2776 2776	000000000000000000000000000000000000000	04272 04269 04187 04180 04225 04232 04232 04234 04379	2 0150 0 0172 7 0214 0 0256 0 0298 2 0340 0 0383 0 0425 0 0469 0 0512 0 0566 0 0666	14- 14- 14- 14- 14- 14- 14- 14- 14- 14-	700 706 708 714 717 725 738 746 754 769 784 799 831 831 847							

REFERENCE		F 5	MARS	OEN	STATION TI			OR	GINAT	OR'S	$\Box$	<b>OEPTH</b>	MAX. OEPTH	005	WAV	E	WEA-	Crono		1.3	ODC	
CTAY IO. CODE LATITUE	1	NGITUDE 5		- 1	IGMTI		EAB	CRUISE		TION	-1,	TO BOTTOM	OF		ERVA.		THER	CODES			UMBER	
CODE NO.	1/10	1/10	10*	1°	MO DAY H	R,1/10		NO.	NU	MBER	-1		S'MPL'S	1		ER SE	`	TYPE AM	1		-	1
31 771 00 5622	N 05	1085W	186	61	10 24 1	31 1	966	058	800			3658	15	13	2 4	4	X2	5 8	1		000B	
, , , , , , , , , , , , , , , , , , , ,				WA	TER W	/INO	BARO	All	TEMP.	℃	VIS.	NO.	SPEC	TAI								
				COLOR		SPEED	METER	R OR		WET	cond	OBS. OEPTNS	OBSERV									
				CODE	(m)	FORCE	(mba)	-	-	IULO												
					16	506	295	5 07	8 (	067	7	14										
MESSENGR CAST			T			T	T	SPECIFIC 1	OUTME	1 × /	<u>۸</u> ۵.	SOI	ОИГ		PO	14-P	TOTAL-P	NO2-N	NO <sub>3</sub> -N	\$1 O4-\$i		5
I IMP U NO.	CARO	OEPTH (m)	T	°C	s °/	SIGM	A-T	ANOMA	Y-X107	DYN	1. M. 10 <sup>3</sup>	VELC	CITY	O <sub>2</sub> ml/l		01/1	νg = at/3	μg = αI/I	yg - at/l	μg - ot/1	рH	C
HR 1/10						-				+-	-	+	-		+	$\rightarrow$				-		-Н
					0450	1 222	, 1	0009	1 ( )	1	00	1,	771		1					1		
	STO	0000		664	3458	271		0003	101	00	00		771									
131	OBS	0000		664	34581 3458	271 271		0009	164	00	09		772									
	STO	0010		661	3458	271		0009			18		773									
131	085	0025		660	34580	271		0003	-01	-	2.0		773									
131	STD	0030		659	3458	271		0009	140	00	27		774									
131	085	0049		654	34583	271		000					775									
131	STD	0050		647	3459	271		0008	952	00	46		772									
	STO	0075		494	3472	274		0006			164		716									
131	085	0098		408	34798	276				•			685									
131	STD	0100		407	3480	276		0004	690	00	78		685									
	STD	0125		401	3480	276		0004		00	90		687									
131	085	0147		397	34805	276				-		14	689									
	STD	0150		397	3481	276	-	0004	583	01	01	14	689									
	STD	0200		395	3484	276		0004	378	01	24	14	697									
131	QBS	T0201	0	395	34839	276	8					14	697									
131	OBS	0246	0	398	34847	276	9					14	706									
	STD	0250	0	398	3485	276	9	0004	370	01	46		707									
131	OBS	0295	0	401	34875	277	1						716									
	STD	0300	0	400	3488	277	1	0004	250	0.1	67		716									
131	085	T0392		390	34870	277							727									
	STD	0400		389	3487	277		0004	265	02	10		728									
131	085	0490		379	34852	277							739									
	STO	0500		1379	3486	277	_	0004	1324	02	253		740									
131	085	0589		376	34877	277							754									
•	STO	0600		375	3488	277		0004		-	295		756									
	STO	0700	-	369	3488	277		0004	+258	0.2	38		770									
131	085	0787		364	34879	277		200		0.2	001		784									
	STD	0800		1364	3488	277		0004			881 +23		799									
	STO	0900		1360	3489	277		0004	1215	Q-	+23		813									
131	085	T0985		358	34889	277		000	306	0.4	+66		815									
	STD	1000		358	3489 3489	277			350		10		831									
	STO	1200		354	3489	277			393		553		847									
	STD	1300		353	3490	277		0004			97		863									
	STD	1400		353	3490	277		0004			42		880									
131	085	1471		353	34899	277							892									
191	003	1411	,	. , , ,	34077																	

IO.	SHIP	LATITU	DE LO	NGITUGE NGITUGE	MAR SOU	SDEN ARE	STATION TI	YEAR	CRUISE NO.		TOR'S ATION IMBER	DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S		WAVE SERVATIONS [HGT] PER SE	WEA THER CODI	CODES		S	NODC TATION IUMBER
771	ου	5618	3N 0	51122W	186	61	10 25 1	20 1966	6 OSB	009		3603	14	14	2 3	X1	6 5			0009
	, 00	2010	214   0.	/ 1 1 1 1 1	1200	WA		INO BA	1 4	IR TEM		NO.			1-1-1	, ,,,	,			0007
						COLOR	TRANS. DIR.	SPEED AME OR (m)	TER C		WET CODE	OBS. DEPTHS	SPEC OBSERV							
							18	S13 2	61 0	83	072 7	14			L,		,	,		
	MESSENGR TIME HR 1/10	of NO.	CARD TYPE	DEPTH (m)	T	70	s */	SIGMA-T		VOLUM ALY-X10 <sup>7</sup>	£	. VELO	DCITY	O2 ml/	PO4-P yg - ot/1	101AL-8 yg - 01/1		NO3-N ug - al/l	SI O4-Si µg - σ1/I	pН
																	}			
			STD	0000		676	3456	2713	000	9457	0000		775							
	120	0	085	0000	_	676	34562	2713			-0		775							
			STD	0010		674	3456	2713		9454			776 777							
	120	0	ST0 085	0020 0024		673	3456 34560	2713 2713	000	9464	0019		77B							
	121	0	STD	0030		672	3456	2713	000	9452	0028		778							
	120	0	OBS	0048	_	670	34564	2714					781							
		_	STD	0050		654	3458	2717	000	9116	0047	14	775							
			STD	0075	Ç	489	3471	2748	000	6210	0066		714							
	120	0	OBS	0095		410	34784	2763					686							
			STO	0100		410	3479 3481	2763 2765		4796 4676			687 691							
	120	0	STD	0125 0143		411	34833	2766	000	4010	0092		695							
	14	•	STD	0150		418	3484	2766	000	4553	0103		699							
	12	0	OBS	T0191		434	34879	2768					713							
			STD	0200	C	425	3487	2768	000	4453	0126	14	710							
	12	0	085	0236	C	1403	34845	2768					707							
			STD	0250		403	3485	2769	000	4420	0148		709							
	12	0	085	0280		1403	34858	2769	000		0170		714							
	10	_	STD	0300		403	3487	2770	000	4319	0170		718							
	120	O .	08S STD	10369 0400	_	399	34887 3488	2772 2772	000	4201	0212		728							
	12	0	085	0461		378	34875	2773	000	4201	0212		734							
	14	•	STD	0500	_	376	3488	2773	000	4180	0254		739							
	12	0	OBS	0552	_	373	34876	2774	•••				747							
		•	STD	0600		373	3488	2774	000	4199	0496	. 14	755							
			STD	0700	C	371	3488	2774	000	4265	0339	14	770							
	12	0	OBS	0735		370	34884	2775					776							
			STD	0800		368	3489	2775		4244			786							
		0	STD	0900		365	3489	2776	000	4296	0424		801							
	1.0	0	08S STD	T0918		1364	34891	2776	000	4220	0447		804							
	12				- (	362	3489	2776		4330										
	12			_		1150	3480													
	12		STD	1100		359	3489 3490	2777 2777		4364			832							
	12			_	(	359 356 354	3489 3490 3490	2777	000	4364 4395 4437	0254	14	848							

REFERENCE		- E	MARSOEN	AIT NOITATE		ORIGIN	IATOR'S	OEPTH	MAX. DEPTH	,	WAVE	WEA-	CLOUD		l h	00с
CTRY ID. CODE LATITU	1	GITUDE LE	SOUARE	(GMT)	YEAR		NOITATE	BOTTON	. OF		RVATIONS	CODE	CODES		ST	ATION
CODE NO.	1/10	1/10 ~	10° 1°	MO DAY HR		<del>                                     </del>	NUMBER	-	3 M/L 3		IGT PER SEA	1	IIPE AM			JIMOEK .
31 771 00 5627	7N 05	1148W	180 61	10 26 1	29 1966			3475	15	15	3   3	X4	7 8			0010
			WAT	ER W	ND BAR		MP. °C	NO.	SPEC	CIAL						
			COLOR	TRANS. DIR.	SPEED MET		WET COL	OBS.	VIG3290	2 NOITA						
			2001		TORGE		-	1.6	-							
				15	516 14	2 078	072 6	14	<u> </u>							
MESSENGR LCAST	CARD	DEPTH (m)	т °с	s °/	SIGMA-T	SPECIFIC VOLU	ME E A C	so	UND	O 2 ml/l	PO4-P	TOTAL-P	NO2-N	NO3-N	SI O4-Si	
HR 1/10 NO.	TYPE	OEF IN SHIP		' ""	30000	ANOMALY-X	x 10 <sup>3</sup>	VEL	OCITY	0 2	yg = a1/1	yg = 01/1	\fo - gu	1\1o - gu	PG - 01/1	pH (
1 '	STD	0000	0686	3456	2711	000959	4 000	0   14	779		'	,	, ,		'	1
129	oBs	0000	0686	34561	2711			14	+779							
	STD	0010	0684	3456	2712	000959	001	0 14	780							
	STO	0020	0683	3456	2712	000959	94 001	9 14	781							
129	085	0025	0682	34559	2712				782							
	STD	0030	0681	3456	2712	000958	36 002		+782							
129	085	0049	0678	34565	2713				1784							
	STD	0050	0669	3457	2714	000938		-	+781							
	STO	0075	0494	3471	2747	000626	5 006		716							
129	OBS	0099	0398	34798	2765				+681							
	STD	0100	0399	3480	2765	000460	-		1682							
	STD	0125	0413	3483	2766	000455	1 009		+692							
129	oBs	0148 0150	0419 0419	34851 3485	2767 2767	000448	1 010		4699 4699							
129	STD 085	T0198	0419	34852	2768	000440	010		4704							
129	510	0200	0411	3485	2768	000443	33 012		4704							
129	085	0247	0407	34871	2770	000			4711							
12,	STD	0250	0407	3487	2770	000430	05 014		4711							
129	085	0295	0401	34875	2771				+716							
	STD	0300	0401	3488	2771	000426	016	9 14	4717							
129	oBs	T0390	0392	34875	2772				4728							
	STD	0400	0390	3487	2771	00042	76 021		4729							
129	085	0486	0378	34863	2772				4738							
	STD	0500	0377	3486	2772	00042	72 025		4740							
129	OBS	0582	0372	34867	2773	00013	77 0 10		4751							
	STD	0600	0372 0372	3487 3487	2773 2774	00042			4754 4771							
129	STO	0700 0777	0370	34879	2774	00043	21 054		4783							
129	085 STD	0800	0369	3488	2774	00043	30 038		4786							
	STD	0900	0363	3488	2775	000434			4800							
129	085	T0972	0360	34881	2775	000.0			4811							
4.4.7	STD	1000	0359	3488	2776	000434	59 047		4815							
	STD	1100	0358	3489	2776	00043	-		4831							
	STD	1200	0353	3489	2777	00044	18 055	8 14	4847							
	STD	1300	0352	3489	2777	00044	71 060	3 1	4863							
	STD	1400	0352	3489	2777	00045	29 064		4880							
129	085	1459	0352	34895	2777			1	4890							

ID. CODE	LATITU	1/10	LDN	GITUDE * 1/10	DRIFT	MARS SQU			TION TI		YEAR	CRUISE NO.		TATION UMBER		DEPTH TO DTTDM	MAX, DEPTH DF S'MPL"		WAVE SERVATION PER		WEA- THER CODE	CLOU CODE	2		NODC TATION IUMBER
771 DU	5619	N	05	110 W		186	61	10	28 1	.79	1966	058	017	1	3	640	13	28	3 2		X2	6 8	3		0011
. , . ,					'		WA	_		IND	BARG		AIR TEM	IP. ℃		NO.	-		-	1			'	- '	
							COLOR	TRANS (m)	OIL.	SPEED OR FORCE	METE	R [	DRY UL8		15.	OBS. EPTHS	ORSERV	CIAL 'A TIDNS							
								Ļ	24	515	19	6 0	44	033	7	14			<u> </u>						
MESSENGA TIME HR 1/10	T ND.	CAR		DEPTH	(m)	т	°C	S	٠/	SIG	AA-T	SPECIFIC	VOLUA ALY—X10	DYN.	M.		DCITY	D2 ml/	PD4-		OTAL-P ug = 01/1	NO2-N vg - at/		\$1 D45 99 - 01/	рН
																								-	
'			TD	000			642		57	27		000	893	5 000	00		762								
179	9	08:		000			642		574	27		000	005/				762								
			TD	001			642 642		57 57	27 27			8950				764 765								
179	۵	08:	10	002			642		574	27		000	0 7 6 4	+ 00.	. 0		766								
11	7		TO	003			642		57	27		000	8979	9 002	7		767								
179	9	08		004			642	-	573	27							770								
			TO	005	0	0	626	34	59	27	22	000	8688	004	٠5	14	764								
		S	TD	007	-		466	-	72	27		000	5884	4 000	3		705								
179	9	083		009			403		777	27							682								
		_	TD	010			403	_	79	27			4728	-			684								
17	_		TD	012			405		81	27		000	4614	+ 008	88		689								
179	9	08	5 TD	013			405 405		816 83	27 27		000	4403	3 009	0.0		690 693								
179	0	08:		017			405		842	27		000	4493	, 00	,,		698								
41:	,		10	020			406	-	86	27		000	4329	9 012	1		702								
179	9	08:		021			407		862	27		000	752.	, , , ,	•		706								
		-	TD	025			403	-	86	27		000	4330	014	٠3		709								
179	9	08	S	025	9	0	402	34	862	27	70			-		14	710								
		S	TO	030	0	0	401	34	87	27	70	000	4498	8 016	4	14	717								
179	9	QB:		T034			398	-	677	27							723								
			TD	040			390		87	27		000	4276	5 020	7		729								
179	9	08	-	042			387		865	27							732								
179	n		10	050		_	380		86	27		000	431	2 025	0		741 742								
175	7	QB:	5 10	T051			379 369		863 86	27 27		000	429	7 049	1 2		753								
179	0	08:		066			365		860	27		000	767	. 02:	, ,		762								
	,		a TD	070			365		87	27		000	427	7 03	36		768								
		_	TO	080			367		88	27			430				765								
179	9	08		T082			367		881	27							790								
		S	TD	090	00	0	367	34	88	27	75	000	4378	B 042	22	14	802								
			TO	100			365		88	27			444(				818								
			TO	110			362		88	27			448	_			833								
			TD	120			358		88	27		000	4508	3 05	6		849								
179	9	08:	S	T127	13	0	354	34	884	27	76					14	859								

Table 11. Observed and interpolated oceanographic data for stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 24 November-12 December 1966, prepared from NODC listing No. 31-819 ML.

	,					.,																							
REFERENCE	SHIP				E MAR	SDEN	STATI	ON TI	M.E	WF + D		ORIGI				EPTH	MAX.		W BSER	AVE			WEA-	CLO			١.	NOOC	
CODE NO.	CODE	LATITU			7					YEAR	CRUI		TATE			MOTT	S'MPL*	1 "					HER	CO				TATION	
1		5 6 4 0	1/10	1/10	10°	-		AY H		101		-	_	TBEK	+			1	-		R SE	^-		TYPE			-+		
31 81	9 ML	5640	7N   C	05105 W	186	4—4			73	196	6 82				3:	566	07	2	4   5	4	-		X 2	5	8			0001	i
						WAT		W	INO		RO-	AIR TE	т —	- v	15.   ,	.ON.	SPE	CIAL											
						COLOR	TRANS.	DIR.	SPEED OR FORCE	M E	TER bs1	BULB		JLB CC		EPTHS	OBSERV	ATION	2										
								23	522	-	39		-	6	-	14			-										
						L		4,5	522		7/		Щ,		-	• •			1						_	-		1	_
	MESSENGI	CAST NO.	CARO	OEPTH Im	,	* *c	2	-/	SIG	MA-T		FIC VOL		₹ ∆ DYN.	о м.	sou		0 2 m	1/1	PO.		1014		NO2		NO3-N	Si O <sub>4</sub> -Si	рН	S
	HR 1/10	T NO.	TYPE								ANI	JMALT-I	197	x 10	3	VELO	CITY			h8 -	d1/1	- פע	01/1	N5 - €	1/1	yg + a1/l	µg - at/l	, , ,	C
									Т																				T
	1	' '	ST	0000	' (	485	346	52	27	41	00	0674	+7	` 000	0 '	140	699'				,		,		'			•	,
	17	3	OBS	0000	(	485	346	521	27	41						140	699												
			ST	0010	(	484	340	52	27	41	0.0	067	51	000	7	14	700												
	17	3	085	0014		1483	346	514		41							700												
			ST			0483	346			41	-	0680		001			702												
			STI			484	340	_		41	00	068	23	002	0.5		703												
	17	3	085	0030		484	341	514		41							703												
			STI			)483	346			41	00	1068	23	003	4		706												
	17	3	OBS	0060		483	346			41							708												
			ST			1483	346			42	00	0679	96	005	1		710												
	17	3	OBS	0090		1483		530		42							713												
			ST			480	34			51	00	059	15	006	7		715												
	17	3	OBS	T0122		475		392		64				00-			719												
			ST			475	341			64		047		008			719												
	1.7	2	STI	0150 0157		)475 )475	349			66	00	1046	21	009	12		723 725												
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	17	2	511			1463	341			65	0.0	047	17	011	5		726												
			STI			)447	341			67		0459		013			728												
	17	3	OBS	T0261		)444		385		67	0.		, ,	7-3			728												
		-	STI			437	341			68	0.0	045	75	016	1		732												
	17	3	OBS	0329		1432		885		68							735												
	17		OBS	10397		1419		382		69							740												
			ST			418	348			69	00	0450	06	020	7		741												
	17	3	OBS	0489		399	34	874		71							747												
			ST	0500	(	397	344	37	27	71	0.0	0444	46	025	2	14	748												
	17	3	085	T0541	. (	391	341	853	27	70						14	752												
			ST	0600	(	383	34	35	27	71	00	045	25	049	96	14	759												
			ST	0700	(	374	341	35	27	71	00	045	36	034	2	14	771												
	17	3	OBS	T0716	. (	373	34	847	27	71						14	774												

REFEREN	EFERENCE SHIP LATITU		ONGITUOE 100	MARS	OEN	STATION	TIME			ORIG1NA	TOR'S		OEPTH	MAX.		WAVE	WEA-	CLOUD			NOOC	1	
CODE N	ID. CODE	LATITU	OE L	NOUTION IN	50U A		MO I DAY	THR.1/10	YEAR	CRUISE NO.		A CITA		TO BOTTOA	OF		HGT PER SE	THER	TYPE AM			TATION UMBER	
<del>  -   -   -   -   -   -   -   -   -   -</del>	819 ML	5629		50545W	186		11 25		1	+	_		-	3658			3 2	X1	6 7	1		0002	,
1 241 6	017 146	1 302 3	314   0	303434	1 200	WAT		WINO	1	1	AIR TEM		1	ио.	1		12151	1 41	, 0,7	1	1	0002	-1
						COLOR	TRANS. D	IR. OF	7	ER (	DRY ULB	WET	CODE	OBS. DEPTHS	CASSAN	ATIONS							
					Ì				19	0 0	28	022	2 7	09									
	MESSEN TIME HR 1/		CARO TYPE	OEPTH (m)	T	°c	s °/.	• 210	GMA-T		VOLUA ALY—X10	, 6	∑ ∆ 0 0YN, M, x 10 <sup>3</sup>		OCITY	O 2 m1/1	PO4-P pg = q1/I	TOTAL-P pg = 01/1	NO3-N 9 - 01/1	NO3-N NO3-N	SI O4-Si Ng - 01/I		200
											70.30			١,,			-					1	
	1.	37	STD OBS	0000		559 559	3466		735 735	000	7325	,	0000		730								
	1.	<i>3 (</i>	STD			559	3466		735	000	7326	. (	0007		731								
			STO			558	3466		736		7328		0015		733								
	1:	37	OBS	0027	0	558	3465		736					14	734								
			STO	0030	0	558	3466	2	736	000	7316	. (	0022	14	734								
			STD		0	559	3466	2	736	000	7351	. (	0037		738								
	1:	37	OBS	0053		559	3466		736						1739								
			STE			544	3470		741		6910		0054		737								
			STO			522	3474		746	000	638	, (	0071		732								
	1	37	OBS	0107		514	3474		748	0.00			0000		730								
			STE			483 450	3477		753		5752		0086 0100		+721 +712								
		37	510 085	0150		440	3480		759 761	000	1519	, ,	0100		709								
	1	21	STI			421	3482		764	000	478		0125		708								
	1	37	OBS	10214		416	3482		765	-					708								
	_		ST			407	3483		766	000	4634	. (	0148		710								
	1	37	085	0266		405	3483		767						712								
			ST			404	3484		768	000	4554	. (	0171		718								
	1	37	OBS	0318	0	403	3484		768					14	720								
			ST	0400	0	397	3486	2	770	000	1442	) (	0216	14	731								
	1	37	OBS	10422	0	395	3486	1 2	770					14	734								

REFERE	10	SNIP	LATITU	DE LO	ACITUDE POURE	MARSDEN SOUARE	STATION TIA	YEAR	ORIGINAT	TICN	TO	MAX. DEPTH	WAVE OBSERVATIONS	WEA-	CLOUD		NODC	,
CODE	NO.	CODE		1/10	1/10 =		MO DAY HR		NO. NU	MBER			IR. HGT PER SE	CODE	TYPE AMT		NUMBER	
31	819	ML	5627	8N   05	0578w	186 60 WAT		45 1966	A ID T CAAR	. 2	NO.		28  3   2	X7	5 8	l	000	3
						COLOR	TRANS. DIR.	SPEED MET	ER DRY 1	WET CODE	200	SPECIAL BSERVATIO	ons					
							28	502 17		022 6	10		_					
	-	MESSENGR TIME	CAST NO.	CARD TYPE	DEPTH (m)	T *C	s */	SIGMA-T	SPECIFIC VOLUME	₹ ∆ Ω DYN. M	SOUN	0 02	m1/1 PO4-P	TOTAL-P	NO <sub>2</sub> -N		SI O4-Si	S
	}	HR 1/10		TTPE					ANDMACT-110	X 10 <sup>3</sup>	VELOC	ITY	yg = 01/1	yg + el/l	µg - at/	µg - al/l	ug - at/I	c
	- 1		1	STD	0000	0483	3461	2741	0006808	0000	1469	98		ļ	I		1	[
		145	5	OBS STD	0000	0483	34610 3461	2741 2741	0006504	0007	1469							
				STD	0020	0483	3461	2741	8084000	0014	147	01						
		14	5	OBS STO	0025	0483 0483	34614 3462	2741 2741	0006805	0020	1470							
		145	5	STD OBS	0050 0051	0483 0483	3462 34619	2741 2741	0006797	0034	147							
				STD	0075	0473	3468	2747	0006286	0050	147	07						
		14	5	STD 085	0100	0463 0463	3474 34739	2753 2753	0005756	0065	147							
				STD	0125 0150	0474 0486	3485 3493	2761 2766	0005053	0079	147							
		14	5	OBS	0151	0486	34931	2766			147	28						
				STD OBS	0200 T0207	0475 0473	3493 34927	2767 2767	0004552	0114	147							
				STD	0250	0458	3491 34910	2767	0004560	0137	147	33						
		1.49	145 0		0252 0300	0457 0442	3489	2767 2768	0004567	0160	147							
			145 C		0301 70397	0442 0418	34894 34882	2768 2769			147							
		145		STD	0400	0417	3488	2769	0004494	0205	147	40						
		145 0			0494	0394	34858	2770			1474	46						
																		_
REFERE	10	SHIP	LATITU	OE LOP	ACITUDE PER	MARSDEN SOUARE	STATION TIN	AE YEAR	ORIGINATE CRUISE STA	OR°S TION		MAX. DEPTH	WAVE OBSERVATIONS	WEA- THER	CLOUD		NODC STATION	
CDDE	NO.	CODE	•	1/10	· 1/10 0 =		MO DAY HR		NO. NUI	MBER		MPL'S D	HE HET PER SE	CODE	TYPE AMT		NUMBER	
31	819	ML	5629	5N   05	0545W	186 60 WAT		73 1966	A IR TS AAP	. ℃	3566 NO.		22  3  2	X1	6 4		0004	4
						COLOR	TRANS. DIR.	SPEED MET		WET CODE	200	SPECIAL						
						CODE	Lm1 CIA.	FORCE (mb		WET CODE	DEPTHS	BSERVATIO	2 140					
	_					CODE	Lm1 CIA	506 17	a) BULB B		DEPTHS 0	DSEKVA IIO	2 40					
			CAST O' NO.	CARD TYPE	OEPTH (m)	CODE	Lm1 CIA	FORCE (Mb	a) BULB B	050 7	14 SOUN	D 03	mi/l PO4-P	TOTA L-P	NO <sub>2</sub> -N		SI O4-Si PH	s c
		MESSENGR TIME MR 1/10		CARD TYPE	OEPTH (m)	CODE	23	506 17	s) 8UL8 8	050 7	14	D 03	20	TOTAL-P	NO <sub>2</sub> -N ug - al/l		SI O4-S1 PM	500
		TIME -	NO.	STD	0000	T %	s */.	SIGMA-T	s) 8UL8 8	050 7	14 SOUN VELOC	D 02	mi/l PO4-P		NO2-N ug - al/l			\$CC
		TIME	NO.	STD OBS STD	0000 0000 0010	0477 0477 0477 0476	3464 34635 3464	SIGMA-T 2743 2743 2744	SPECIFIC VOLUME ANOMALY—X10?  0006556	050 7	14 SOUN VELOC	96 96 97	mi/l PO4-P		NO 2-N ug - al/l			\$ C C
		TIME -	NO.	STD OBS	0000	0477 0477	s *4.	SIGMA-T  2743 2743	SPECIFIC VOLUME ANOMALY-X10?	050 7	14   SOUN VELOC	96 96 97 98	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			5 C C C
		173	NO.	STD OBS STD STD OBS STD	0000 0000 0010 0020 0027 0030	0477 0477 0477 0476 0474 0473	3464 34635 3464 3464 3464 3464 3464	2743 2743 2744 2744 2744 2744	570 061 (C)  SPECIFIC VOLUME ANOMALY—2197  0006556  0006519 0006509	050 7  \$\int \Delta \De	1469 1469 1469 1469 1469	96 96 97 98 99	mi/l PO4-P		NO 2-N µg - al/l			SCC
		173	3	STD OBS STD STD OBS	0000 0000 0010 0020 0027	0477 0477 0476 0474 0473	3464 3463 3464 3464 3464 3464	2743 2743 2744 2744 2744	SPECIFIC VOLUME ANOMALY-X10?  0006556  0006519 0006509	050 7 ∑∆ D DYN. M. x 10 <sup>3</sup> 0000 0007 0013	14   SOUN VELOC	96 96 97 98 99 99 99	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			2 C C
		173	3	STD OBS STD STD OBS STD STD OBS STD	0000 0000 0010 0020 0027 0030 0050 0053 0075	0477 0477 0477 0476 0474 0473 0473 0470 0469 0478	3464 34635 3464 3464 3464 3464 3464 3464	SIGMA-T  2743 2744 2744 2744 2744 2745 2745	DO 6556  0006519 0006489 0005564	050 7	146 146 146 146 146 146 146 147	96 96 97 98 99 99 90 1	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			SCC
		173	3 3	STD OBS STD STD OBS STD OBS STD OBS STD OBS	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0106	0477 0477 0476 0474 0473 0473 0470 0469 0478 0488	3464 34635 3464 3464 3464 3464 3464 3469 34913	SIGMA-T  2743 2743 2744 2744 2744 2744 2745 2745 27563 2765	a) SULS 8 0 061 ( SPICIFIC VOLUME ANOMALY-1187  0006556 0006519 0006509 0006479 0006479	0000 0007 0013 0020 0048 0061	146 146 146 146 146 146 146 147 147 147 147	96 96 97 98 99 99 99 90 1 11 11 19 20	mi/l PO4-P		NO 2-N µg - al/l			SCC
		173	3 3	STD OBS STD STD OBS STD STD OBS STD STD	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0106 0125 0150	0477 0477 0477 0476 0473 0473 0470 0469 0478 0485 0484 0483	3464 3464 3464 3464 3464 3464 3464 3464	SIGMA-T  2743 2743 2744 2744 2744 2744 2745 2745 2763	DO 6556  0006519 0006489 0005564	050 7	146 146 146 146 146 146 147 147 147 147 147 147	96 96 97 98 99 99 90 1 11 11 12 20 22 26	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			S C C
		173	3	STD OBS	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0106 0125 0150 0160	0477 0477 0476 0474 0473 0473 0479 0469 0478 0485 0485 0485 0480 0478	3464 34635 3464 3464 34642 3464 34642 3478 34913 3492 34914 34949	SOG 17  SIGMA-T  2743 2743 2744 2744 2744 2744 2745 2745 2765 2765 2766 2767	DO 6556  0006489 0004836 0004613	0000 0000 0000 0007 0013 0020 0033 0048 0061	14   SOUN VELOC   146'   146'   146'   146'   146'   147'	02 96 96 97 98 99 99 90 1 11 11 19 20 22 23 22 27	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			NOU
		173	3	STD OBS	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0106 0125 0150 0160 0200 70214	0477 0477 0476 0474 0473 0473 0470 0469 0478 0484 0485 0483 0480 0478	3464 34635 3464 34635 3464 3464 3464 346	SIGMA-T  2743 2744 2744 2744 2744 2745 2745 2763 2766 2767 2767	DO 6556  0006519 0006509 0006489 0006479 0004513 0004522	D50 7    \$\partial \partial \part	146 146 146 146 146 146 146 147 147 147 147 147 147 147 147 147 147	96 96 96 97 98 99 99 90 101 111 120 220 223 226 227 330	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			NOU C
		173 173 173 173	3	STD OBS STD	0000 0000 0010 0020 0027 0030 0050 0053 0075 0106 0125 0150 0160 0200	0477 0477 0477 0476 0473 0473 0473 0473 0478 0489 0488 0488 0488 0489	3464 34635 3464 34642 34642 34642 34642 34642 34913 34913 34913 3492 3494 3493	506 17  SIGMA-T  2743 2743 2744 2744 2744 2744 2745 2765 2765 2766 2767 2767	DO 6556  0006489 0004836 0004613	0000 0000 0000 0007 0013 0020 0033 0048 0061	146 146 146 146 146 146 146 147 147 147 147 147 147 147 147 147 147	96 96 97 98 99 99 99 01 01 11 11 22 23 22 27 23 30 31	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			S C C
		173 173 173 173 173 173 173	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	STD OBS STD STD OBS STD	0000 0000 0010 0020 0027 0030 0053 0075 0100 0106 0125 0150 0200 70214 0250 0267 0300	0477 0477 0477 0476 0473 0473 0473 0473 0478 0489 0489 0489 0485 0480 0478 0465 0465 0465	3464 34635 3464 34642 34642 34643 34642 34913 34913 3492 34940 3493 34920 3492 34912 34912	SIGMA-T  2743 2744 2744 2744 2744 2745 2765 2765 2766 2767 2767 2767 2767 276	DO 6556  0006519 0006509 0006489 0006479 0004513 0004522	D50 7    \$\partial \partial \part	146   146   146   146   146   146   146   147	96 96 96 99 99 99 99 90 1 11 11 11 12 20 22 30 31 33 33	mi/l PO4-P		NO <sub>2</sub> -N µg - al/I			S C C
		173 173 173 173 173 173 173 173 173 173	333333333333333333333333333333333333333	STD OBS STD	0000 0000 0010 0020 0027 0030 0050 0053 0075 0106 0125 0150 0200 70214 0250 0267 0300 0320 0400	0477 0477 0477 0476 0474 0473 0473 0470 0469 0488 0485 0488 0485 0488 0478 0465 0465 0465 0465 0465 0465 0465 0465	3464 34635 3464 3464 34642 3464 34642 3478 3491 3491 3492 3494 3493 3492 3491 3491 3491 3491 3491	506 17  SIGMA-T  2743 2743 2744 2744 2744 2744 2745 2745 2765 2766 2767 2767 2767 2767 2767 276	a) SULS 8 0 061 ( SPICIFIC VOLUME ANOMALY-219?*  0006556 0006519 0006489 0006479 0005564 0004836 0004607 0004513	0000	146 1466 1466 1466 147 147 147 147 147 147 147 147 147 147	96 996 997 998 999 901 001 111 119 220 223 227 229 301 331 333 441	mi/l PO4-P		NO2-N µg - al/I			S C C
		173 173 173 173 173 173 173	333333333333333333333333333333333333333	STD OBS	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0106 0125 0150 0160 0200 70214 0250 0267 0300 0320	0477 0477 0477 0476 0473 0473 0473 0473 0478 0484 0485 0488 0483 0465 0465 0465 0465 0463 0469	3464 34635 3464 34642 34642 34642 34642 34643 3492 34913 3492 3492 34912 34912 34912 34912	SOGE 175 SIGMA-T 2743 2744 2744 2744 2744 2744 2745 2745 2765 2767 2767 2767 2767 2767 2767 2767 2767 2767 2767 2767 2767 2768 2769 2770	DO 6556  OD 6519  OD 6569  OD 6569  OD 6564  OD 6564  OD 6579  OD 6589  OD 6489  OD 6489  OD 64836  OD 4607  OD 4513  OD 4522  OD 4474  OD 4388	0000 00072 0084 0106 0129 0151	14   SOUN VELOCE   146   146   146   146   146   146   147	96 96 96 99 99 99 99 90 1 11 11 11 19 20 23 26 27 22 30 31 33 34 41 43	mi/l PO4-P		NO <sub>2</sub> -N µg - al/l			NQC
		173 173 173 173 173 173 173 173 173 173	NO.	STD OBS	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0125 0150 0200 70214 0250 0267 0300 0320 0400 70424 0533	0477 0477 0477 0476 0474 0473 0473 0470 0469 0488 0488 0485 0488 0485 0488 0478 0465 0465 0465 0465 0465 0465 0469 0465 0469 0469 0469 0469 0469 0469 0469 0469	3464 3463 3464 3464 3464 3464 3464 3464	SOGE 175 SIGMA-T 2743 2743 2744 2744 2744 2744 2744 2745 2765 2765 2767 2767 2767 2767 2767 2767 2767 2767 2770 2771 2771 2771 2772	a) SULS 8 0 061 ( SPECIFIC VOLUME ANOMALY-219?*  0006556 0006519 0006489 0006479 0005564 0004836 0004607 0004513 0004522 0004474 0004388 0004363	0000   S	146 1466 1466 1466 1470 1470 1470 1470 1470 1470 1470 1470	96 996 997 998 999 901 001 111 119 220 223 227 229 331 331 333 441 443 4551 554	mi/l PO4-P		NO <sub>2</sub> -N yg - al/l			\$QQ
		173 173 173 173 173 173 173 173 173 173	NO. 33	STD OBS	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0106 0125 0150 0200 70214 0250 0267 0300 0320 0400 70424 0500 0533 0600 70642	0477 0477 0477 0476 0473 0473 0473 0473 0478 0489 0489 0489 0465 0483 0480 0478 0465 0465 0465 0439 0418 0418 0418 0418	3464 34635 3464 3464 3464 3464 3464 3464	SOGE 175  SIGMA-T  2743 2744 2744 2744 2744 2745 2745 2765 2767 2767 2767 2767 2767 2767 2770 2770	DO 6556  OD 6519  OD 6569  OD 6569  OD 6569  OD 6579  OD 6564  OD 6579  OD 6579  OD 6589  OD 6479  OD 6479  OD 64836  OD 6474  OD 64836  OD 64836  OD 64836  OD 64836  OD 64836  OD 64836	0000	146 1466 1466 1466 1470 1470 1470 1470 1470 1470 1470 1470	96 996 997 98 999 901 01 111 119 220 227 223 330 331 333 334 41 41 41 43 551 660 664	mi/l PO4-P		NO 2-N µg - al/l			\$UU
		173 173 173 173 173 173 173 173 173 173	NO. 33	STD OBS STD	0000 0000 0010 0020 0027 0030 0050 0053 0075 0100 0125 0150 0160 0200 10214 0250 0400 70424 0500 0533 0600	0477 0477 0477 0476 0473 0473 0473 0473 0478 0488 0488 0488 0489 0469 0465 0469 0469 0469 0469 0469 0469 0469 0469	3464 34635 3464 34642 34642 34642 34642 34642 3491 34913 34913 34920 3493 34912 34913 34913 34913 34913 34913 34913 34913 34913 34913 34813	SIGMA-T  2743 2744 2744 2744 2744 2744 2745 2775 2767 2767 2767 2767 2767 2767 2770 27770 27771 27772 27772 27772 27772	a) SULS 8 0 061 ( SPECIFIC VOLUME ANOMALY-219?*  0006556 0006519 0006489 0006479 0005564 0004836 0004607 0004513 0004522 0004474 0004388 0004363	0000   S	146 1466 1466 1466 1470 1471 1471 1471 1471 1471 1471 1471	96 996 997 998 999 901 001 119 220 223 227 229 331 331 334 441 435 514 660 673	mi/l PO4-P		NO 2-N µg - al/l			500
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REFE	RENCE	SHIP		-		J	MARS	DEN	STATION	TIME			RIGINAT	OR*S	DEPTH	MAX. DEPTH		WAVE		WEA-	CLOUD	Τ		NODC	
CTRY	ID. NO.	CODE	LATITU		LONGITUE	10.3	SOU	- 1	lGM		YEAR	CRUISE NO.		TIDN	BOTTON	. OF	1	SERVATI		THER	CODES	_	5	TATION	
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		12	5	OB:		543		376	3486	-	772					746									
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						000		362	3488	_	775	000	4449	045		817									
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REFERENCE SHIP		E MA	RSDEN UARE	STATION TIM		DRIGINATO		DEPTH	MAX, DEPTH	WAVE DESERVATIONS	WEA-	CLDUD			ATION
CTRY ID. CODE LATITUE	1/10 LDN			MO DAY HR.	YEAR	CRUISE STAT		BOTTOM	OF S'MPL'S	DIR. HGT PER SE	_ cons	TYPE AMI		N N	UMBER
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31 819 ML   5638	N   U5	049 W   18	6 60 WAT		28 1966	A IR TEMP	*C [				^2	1 210	1	, ,	0007
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TIME OF ND.	TYPE	DEPTH Im1	7 10	s */	SIGMA-T	ANOMALY-1107	X 103	. VELD	CITY	11 = gu	yg = at/l	µg - at/1	µg - al/l	yg - at/l	pH
1 ' '	STD	0000	0399	3463	2751	0005820	0000	146	663	'		·			
135	085	0000	0399	34626	2751			146							
	STD	0010	0399	3463	2751	0005837	0006								
1.26	STD	0020	0399	3463	2751	0005847	0012								
135	OBS	0026	0399	34624 3462	2751 2751	0005866	0018	146							
	SID	0050	0400	3463	2751	0005878	0029								
135	085	0050	0400	34626	2751	0003010	002	146							
133	STD	0075	0402	3463	2751	0005894	0044								
	STD	0100	0403	3463	2751	0005918	0059	146	581						
135	085	0100	0403	34631	2751			146	581						
	STD	0125	0411	3477	2761	0004980	0072								
135	085	0149	0416	34846	2767		- 0		698						
	STD	0150	0416	3485	2767	0004457	0084								
135	STD	0200 10200	0416 0416	3486 34858	2768 2768	0004448	0106		706 706						
135	08S 08S	0249	0411	34860	27680			14	700						
155	STD	0250	0411	3485	2768	0004505	0129	147	712						
	STD	0300	0406	3484	2767	0004575	0152								
135	OBS	T0395	0396	34820	27670										
	STD	0400	0395	3483	2768	0004628	0198								
135	085	0490	0383	34817	2768				740						
	STD	0500	0382	3482	2768	0004677	0244								
135	085	10583	0377	34813	2768	0004704	0.403		753						
	STD	0600 0700	0377	3481 3482	2768 2 <b>7</b> 69	0004734	0291		756						
135	STD 08S	0774	0371	34820	2769	0004795	0335		782						
133	STD	0800	0370	3482	2770	0004779	0386								
	STD	0900	0366	3482	2770	0004803	0434								
135	085	0968	0364	34824	2770				811						
	STD	1000	0363	3483	2771	0004837	0482								
	STD	1100	0360	3483	2771	0004870	0531		832						
	STD	1200	0358	3483	2771	0004913	0580		848						
	STD	1300	0356	3483	2772	0004947	0629		864						
135	STD 085	1400 T1487	0355	3483 34836	2772 2772	0005000	0679		880 895						
135	003	11-01	0554	34030	2112			140	075						

REFERENCE		- # C	MARSDEN	STATION TIA		ORIGINATO	R"S	OEPTH DEPT		WAVE	WEA-	Cronp	1		NODC	
CTRY IO. CODE LATIN	1/10	NGITUOE	SOUARE 10° 1°	IGMT)	YEAR	CRUISE STAT		ROTTOM S'MPI	1 000	SERVATIONS	THER	CODES			UMBER	
					-	<del>                                     </del>	+	_		HGT PER SE	-	TYPE AM	-	_		
31  819  ML   562	בטן אכס	059 W	186 60 WAT		41 1966	B22 JOS		3621 1:	3 35	3 2	X8	5 8	I	ı	0008	
			COLOR		SPEED MART	0-	VIS.	OBS. OPECO	ECIAL VATIONS							
			COOE	(m) DIR.	FORCE (mb		JLR	DEPTHS	_ ION 5							
				04	\$15 14	0 006 0	146 7	14								
MESSENGE CAST	CARO					SPECIFIC VOLUME	₹ △ □	SOUNO		PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO3-N	SI O4-Si		5
HR 1/10	TYPE	OEPTN (m)	T C	5 %.	SIGMA-T	ANDMALY-1107	X 10 <sup>3</sup>	VELOCITY	O2 ml/I	μg - ot/I	µg = at/I	νg - οι/1	pg - at/I	µg - o1/l	pН	C
111111	+	1						+								+
	STD	0000	0400	3461	2750	0005935	0000	14663	I	1 1	- 1				'	11
141	085	0000	0400	34612	2750	000-732	0000	14663								
	STD	0010	0401	3461	2750	0005954	0006	14665								
	STO	0020	0402	3461	2750	0005980	0012	14667								
141	085	0022	0402	34611	2750			14668								
141	STD OBS	0030	0402	3461 34611	2750	0005991	0018	14669								
141	STO	0050	0400	3462	2750 2751	0005925	0030	14671								
	STD	0075	0397	3466	2754	0005619	0044	14675								
141	085	0086	0396	34669	2755	0007017	9044	14677								
	STD	0100	0402	3468	2755	0005540	0058	14682								
	STD	0125	0411	3470	2756	0005506	0072	14690								
141	OBS	0128	0412	34703	2756			14691								
	STD	0150	0421	3475	2759	0005259	0085	14699								
141	OBS	T0170	0425	34782	2761			14704								
14.1	STD	0200	0419	3479	2762	0004989	0111	14707								
141	08S STD	0213 0250	0418	34794 3481	2763 2763	0004934	0136	14708								
141	085	0256	0420	34807	2763	0004734	9130	14715								
	STO	0300	0401	3481	2766	0004749	0160	14716								
146	085	0301	0400	34809	2766	••••	0-00	14716								
146	085	0374	0401	34811	2766			14728								
	STD	0400	0398	3481	2766	0004810	0208	14731								
146	OBS	T0452	0392	34806	2766			14737								
	STD	0500	0384	3480	2767	0004825	0256	14742								
146	STD OBS	0600 0626	0374 0372	3480 34798	2768	0004806	0304	14754								
140	STD	0700	0373	3480	2768 2768	0004880	0353	14758								
	STD	0800	0374	3481	2768	0004905	0353	14770								
146	OBS	0814	0374	34813	2769	0004903	0402	14790								
	STD	0900	0373	3481	2769	0004958	0451	14804								
	STD	1000	0371	3481	2769	0005013	0501	14820								
	STD	1100	0368	3481	2769	0005061	0551	14835								
	STD	1200	0364	3482	2770	0005089	0602	14850								
	STD	1300	0358	3482	2770	0005096	0653	14864								
146	OBS	T1324	0356	34815	2771			14868								

Table III. Observed and interpolated oceanographic data for stations taken by USCGC HUMBOLDT at Ocean Station BRAVO, 7-31 January 1967, prepared from NODC listing No. 31-870 HU.

REFERENCE	CVID				E MA	RSDEN	STATION	TIME		-	ORIGIN			OEPTH	MAX		WAVE	nus.	WEA-	CLOUD			NOOC	
CTRY IO.	COOE	LATITU			55	UARE	(GMT		YEAR	CRUISE NO.		OITAT		BOTTOM	0.5	000	HGT PE		CODE	TYPE AM			TATION	
-	<del>       </del>	5642	1/10 O	5046 W	18		01 07	198	1967	+	_			3566	14	-	4 3		X6	5 8	1	_	0001	
31 87	o Hu	2042	3N   0	J040 W	1 110	WA		WINO		<del></del>	AIR TEA				<u> </u>		•   -	1	1 ~~	1 - 10	1	1	9001	
						COLOR	T	SPEE	D BAR	٥- ٢	ORY	WET	VIS.	ORS.		ECIAL VATIONS								
						COOF	TRANS OIR	FOR	4 4	6) 8	ULB	BULE	<u> </u>	OFFIHS										
							34	510	0 08	15 0	39	03	6 6	14	1									
	MESSENGR	CAST	CARO					Î		SPECIFIC	VOLU	ME	≨ Δ Ω 0 Λ, Μ	so	סמט	02 ml/	PO	P	TOTAL-P	NO2-N	NO3-N	5104-5		5
	TIME HR 1/10	NO.	TYPE	OEPTH I	m)	τ *C	s */	310	T-AME	ANOM	ALY-R1	07	x 10 <sup>3</sup>	. VEL	OCITY	O 2 Mil/	νg -	01/1	μg - a1/l	µg - at/l	μg - at/l	νg - al/	pN	Ċ
	1111 1710	1																						$\top$
	1	' '	STO	000	0 '	0396	3477	' 2	763	000	472	2	0000		664		'					'		
	19	8	OBS	000		0396	34768		763			_			664									
			STD			0391	3477		763		469		0005		663									
			STD			0388	3476		763	000	)469	3	0009		664									
	19	8	OBS	002		0387	34763	_	763	000			0014		664									
			STO			0388	3476		763	000	)469		0014		665									
	19	8	OBS	004		0389	34768		763 763	000	471	4	0u 24		670									
			STO			0411	3480		764		470		0035		683									
	19	0	OBS	009		0418	34815		764	000	, , , ,		••••		689									
	13	0	STD			0416	3482		764	000	466	9	0047		689									
			STO			0408	3481	_	765		1462		0059		690									
	19	A	OBS	014		0405	34811	2	765					14	692									
		•	STO	015	0	0405	3481	2	765	000	)463	12	0070	) 14	693									
	19	8	OBS	T019	3	0408	34819		766						701									
			STO			0414	3483		766	000	)463	16	0093		705									
	19	8	OBS	023		0441	34870		766	000			011-		723									
			STO			0449	3488		766	000	)469	12	0117		729									
	19	8	OBS ST	028		0464	34914 3491		767 767	000	0462	2	0140		741									
	19	0	0B5	T037		0431	3489		769		, , , ,	-	0-40	-	742									
	19	0	510			0426	3489		769	000	0451	19	0186		744									
	19	А	OBS	047		0411	3488		770					14	750									
		-	ST			0407	3488		770	000	0448	32	0431		1754									
	19	8	085	057	1	0397	3487.	2 2	771						760									
			ST			0391	3486		771		3454		0276		+762									
			STO			0375	3485		771	000	0453	3 3	0321		+772									
	19	8	OBS	076		0370	3484		771			• •	03/		780									
			STO			0371	3485	_	772		0457 0453	-	0361		787 804									
	1.0	0	SI	090		0373	3487 3487		773	000	J 493	,,	U-12		814									
	19	ø	OBS			0374	3487		773	000	0462	20	0458		822									
			ST			0373	3487		773		0468	-	050		838									
			ST			0369	3487		774		0471		0552		+853									
			STI	_		0364	3487		774		0473		0599		+868									
			511			0358	3488		775		0473		0644		+882									
	1.0		080			0354			776					14	. 888									

14888

198

OBS T1445

0354 34875 2776

REFERENCE	SHIP	1 4 71741	05 16	NCITUOS E	MAR SOU	SDEN	STATION	TIME	YEA		ORIGIN			OEPTH	MAX.	08	WAVE	INS.	WEA	CLOUG	2		NOOC	
CODE NO.	COOF	LATITU	1/10	NGITUOE 1/10	N 10°	- 1	YAD OM			"		STATIC NUMB		MOTTOR	OF S'MPL"	1	HGT PER		0000				TATION	
31 87	O HU	5626		5102 W	186		01 08	146		67	822 00	2		3566	16	35	4 3		X7	5 8			0002	
,	-,	,			1	WAT	_	WING		BARO	A 10 TE			NO.	-	CIAL	]		,		•	'		
						COLOR	TRANS. DI		R A	METER (mbs)	ORY	W E BUL	T CODE	OBS. OEPTHS		ATIONS								
						CODE	3	FOI	-			02		14			-							
						1	3	3   52	, 2	196					1	-	<u> </u>	$\overline{}$		ī	1		Ι	-
	MESSEN	GR CAST	CARD TYPE	OEPTH (m)	Т	℃	s */	SI	IGMA-	-7	ANOMALY-XI	ME 107	OYN. M.	VELC	JNO	O <sub>2</sub> m1/	PO4-		1DTAL-P	NO2-N μg - σ1/1		\$1 O4-\$1 pg - a1/1		
	HR 1/1	10								$\dashv$			x 10 <sup>3</sup>				7.	-	,	P4 - 0	pg = 001	74 - 5	-	_
		1	670	0000		270	3667	1,	75/		000633	_	0000	1			}	- 1		l	1	1		
	14	46	STD	0000		379	3467 3466		1756 1756		000532	**	0000		655 655									
	•	••	STD	0010		379	3467		757		000530	0	0005		657									
			STO	0020	0	378	3467		757		000530	5	0011	14	658									
	14	46	OBS	0026		378	3467		757						659									
			STO	0030		379	3468		758		000524		0016		660									
			STO	0050 0051		383	3469		758		000522	6	0026		665									
	1.	46	OBS STO	0075		383	3469 3470		2758 2759		000517	16	0039		666 670									
			STD			383	3471		759		000512		0052		674									
	1	46	OBS	0103		383	3471		760						675									
			STD	0125		402	3477	2	762		000488	8	0065	14	687									
			STO	0150		1415	3481		2764		000474	7	0077		697									
	1	46	OBS	0155		417	3481	-	2764		000157		0100		699									
	1.	46	STD OBS	0200 T0209		415	3484 3484	_	2766 2767		000457	2	0100		706 707									
	1.	40	510	0250		406	3484		2767		000452	7	0123		710									
	1	46	OBS	0257		405	3483		767			•			711									
			STO	0300	0	406	3485	2	768		000449	9	0145	14	718									
	1	46	OBS	0308		406	3485		768					14	720									
	_		510			1394	3485		770		000444	-6	0190		730									
	1	46	08S ST0	T0410		393	3485 3485		2770		000661	3	0234		731									
	1	46	OBS	0511		380	3485		2 <b>771</b> 2771		000441		0234		741									
	-		SID			376	3486		2772		000438	1	0278		756									
	1	46	OBS	T0613	(	375	3486	1 2	2772						757									
			STO			371	3486	_	2773		000439		0322		770									
			STO		-	367	3487		2773		000441	8	0366		785									
	1	46	085	0820		366	3486		2774		000440		0611		788									
			STD STD			364 362	3487 3488	_	2774 2775		000444		0411		801									
	1.	46	085	T1031		361	3487	_	2775		000444	, ,	0433		821									
	•		STD			359	3488		775		000447	14	0500		832									
			STD			357	3488		2776		000451		0545		848									
			STD			355	3488		2776		000456		0590		864									
			STD			353	3489		2776		000460		0636		880									
	1	46	STO			352	3489		2777		000468		0682		897									
	1	46	OBS	T1587		350	3488	0 4	2777					14	910									

18   18   10   10   10   10   10   10	SHIP LATIT	LIOE LOI	NGRINOE F.D.		STATION TIME				DEPTH	OCERTICAL PROPERTY.			CLOUD			NODC	ĺ
STO   ODG   OTT   ODG   OTT			1/10						10	OF							
Watte   Watt	31 870 HU 562	8 N 05	108 W	186 61	01 09 1	28 1967	822 003									0003	
		•	, ,	WAT		IND BAR	A 10 Y C 14 B	°C			7 7 7 7	1 // 4	1 2 10	1	1	0003	
						OR		VET COD	OBS. O	BSERVATION	2						
STO   0000   0374   3467   2757   0005294   0010   14653   14659   14659   14659   14664   14664   14669   1				-		TORCE			1.6		-						
STO   ODG   ODG	HILLIANGS	T				310   10		1	<del></del>		Ц		1				$\overline{}$
STO   OOOO   O374   3467   2757   OOO5284   OUO   14653   128   O85   OOOO   O374   3467   2757   OOO5293   OUS   14655   STO   OOOO   O374   3467   2757   OOO5293   OUS   14655   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	TIME OF NO.		OEPTH (m)	τ *c	s %.	SIGMA-T		DYN. M	. VELOC								S
128	HR 1/10	<del> </del>			<del></del>			X 10 <sup>3</sup>	-		70 - 0.71	pg - di//	P\$ - 0171	pg = ai/i	pg = ai/	-	c
128	, ,	STO	0000	0374	3467	2757	0005784	0000	1 166	6.3			1	- 1		1	
STO   0010   0374   3467   2757   0005293   0005   14655     STO   0020   0374   34667   2757   0005294   0011   14656     STO   0020   0374   34666   2757   0005293   0016   14657     STO   0050   0380   3469   2758   0005197   0022   14664     STO   0075   0381   3471   2760   0005080   0039   14669     STO   0100   0382   3473   2761   0004963   0052   14674     STO   0125   0393   3475   2762   0004902   0044     STO   0125   0393   3477   2762   0004902   0044     STO   0125   0393   3477   2762   0004902   0044     STO   0120   0403   3477   2762   0004902   0044     STO   0200   0408   3482   2766   0004648   0100   14702     STO   0200   0408   3482   2766   0004407   0145   14719     STO   0300   0407   3486   2769   0004407   0145   14719     STO   0400   0395   3486   2770   0004397   0189   14731     STO   0500   0385   3486   2770   0004397   0321   14732     STO   0500   0385   3486   2770   0004397   0189   14731     STO   0500   0378   3486   2770   0004397   0321   14775     STO   0500   0378   3486   2770   0004397   0321   14775     STO   0500   0378   3486   2777   0004397   0321   14776     STO   0500   0378   3486   2777   0004397   0321   14776     STO   0500   0365   3488   2775   0004404   0453   14864     STO   1000   0356   3488   2775   000446   0497   14832     STO   1000   0356   3488   2775   000446   0497   14836     STO   1000   0356   3488   2775   000446   0497   14864     STO   1000   0356   3488   2775   000446   0497   14864     STO   1000   0351   3489   2777   0004513   0542   14864     STO   1400   0352   3488   2775   000446   0497   14864     STO   1400   0352   3488   2775   000446   0497   14864     STO	128						0007284	0000	-								
STO   0020   0374   34667   2757   0005294   011   14656   14657   14657   14657   14657   14657   14657   14657   14657   14659   14657   14657   14659   14659   14664   128   085   0051   0380   3469   2758   0005197   0026   14664							0005293	0005									
STD   0030   0375   3467   2757   0005283   0016   14659					3467	2757	0005294	0011									
STD   OSS   OSS	128																
128																	
STO   0475   0381   3471   2760   0005080   0039   14669	128						0005197	0026									
STD	120						0005080	0039									
STO   0125   0393   3475   2762   0004947   0064   14683   14691   128   0BS   0156   0403   34772   2762   20004902   0076   14691   14692   14704																	
STO   0150   0401   3477   2762   0004902   0076   14691   14692   14692   14692   14692   14692   14702   14692   14702   14692   14704   1	128			0382	34731	2761											
128									_								
STD   0200   0408   3482   2766   0004648   0100   14702   14704   1	128						0004902	0076									
128	120						0004648	0100									
STD   O250   O413   3486   2768   O004453   O123   14713   O125   O125	128						0007070	0.00									
STD   0300   0407   3486   2769   0004407   0145   14719		STD	0250	0413	3486		0004453	0123									
128	128																
STD   0400   0395   3486   2770   0004397   0189   14731   128   085   T0411   0394   34860   2770   14732   14732   14732   128   085   0517   0384   3486   2771   0004389   0233   14743   14745   14745   14745   14745   14745   14745   14745   14745   14745   14745   14746	120						0004407	0145									
128	128	_					0004307	0100									
STO   0500   0385   3486   2771   0004389   0233   14743   128   085   0517   0384   34857   2771   14745	128						0004397	0109									
128							0004389	0233									
128	128			0384	34857	2771											
STD 0700 0372 3487 2773 0004351 0321 14771 STD 0800 0367 3487 2774 0004381 0365 14785 128 085 0832 0366 34875 2774 STD 0900 0364 3488 2775 0004395 0408 14801 STD 1000 0361 3488 2775 0004444 0453 14816 128 085 T1043 0360 34875 2775 STD 1100 0359 3488 2775 0004467 0497 14832 STD 1100 0359 3488 2776 0004513 0542 14848 STD 1200 0356 3488 2776 0004569 0587 14864 STD 1400 0352 3489 2777 0004618 0679 14896							0004403	0277									
STD 0800 0367 3487 2774 0004381 0365 14785  128 085 0832 0366 34875 2774 14790  STD 0900 0364 3488 2775 0004395 0408 14801  STD 1000 0361 3488 2775 0004444 0453 14816  128 085 T1043 0360 34875 2775 14823  STD 1100 0359 3488 2775 0004467 0497 14832  STD 1100 0359 3488 2776 0004513 0542 14848  STD 1300 0356 3488 2776 000459 0587 14864  STD 1400 0352 3488 2777 0004518 0679 14896	128																
128																	
STD 0900 0364 3488 2775 0004395 0408 14801 STO 1000 0361 3488 2775 0004444 0453 14816  128 0BS T1043 0360 34875 2775 STO 1100 0359 3488 2775 0004467 0497 14832 STO 1200 0356 3488 2776 0004513 0542 14848 STO 1300 0354 3488 2776 0004569 0587 14864 STO 1400 0352 3489 2777 0004551 0633 14880 STO 1500 0351 3489 2777 0004618 0679 14896	128						0004381	U265									
STO 1000 0361 3488 2775 0004444 0453 14816 128 0BS T1043 0360 34875 2775 14823 STO 1100 0359 3488 2775 0004467 0497 14832 STO 1200 0356 3488 2776 0004513 0542 14848 STO 1300 0354 3488 2776 0004569 0587 14864 STO 1400 0352 3489 2777 0004551 0633 14880 STO 1500 0351 3489 2777 0004618 0679 14896							0004395	0408									
STO 1100 0359 3488 2775 0004467 0497 14832 STO 1200 0356 3488 2776 0004513 0542 14848 STO 1300 0354 3488 2776 0004569 0587 14864 STO 1400 0352 3489 2777 0004551 0633 14880 STO 1500 0351 3489 2777 0004618 0679 14896				0361	3488	2775	0004444										
STO 1200 0356 3488 2776 0004513 0542 14848 STO 1300 0354 3488 2776 0004569 0587 14864 STO 1400 0352 3489 2777 0004551 0633 14880 STO 1500 0351 3489 2777 0004618 0679 14896	128																
STD 1300 0354 3488 2776 0004569 0587 14864 STD 1400 0352 3489 2777 0004551 0633 14880 STD 1500 0351 3489 2777 0004618 0679 14896																	
STD 1400 0352 3489 2777 0004551 0633 14880 STD 1500 0351 3489 2777 0004618 0679 14896																	
STD 1500 0351 3489 2777 0004618 0679 14896																	
100 000 0000																	
000 10000 2000 2000	128	OBS	T1560	0350	34899	2778			1490								

REFERENCE	SHIP			-=	MARSOEN	STATION TH		ORIGINATI	OR*S	OEPTH MAX		WAVE	WEA-	CLOUG			100C	
CTRY IO.	COOE	LATITUE		NGITUOE HONGITUOE	SOUARE	IGMT)	YEAR	CRUISE STA	TION	BOTTOM S'MPL	""	HGT PER SE	THER	TYPE AM		N SI	MBER	
	-		1/10	1/10		MO DAY HE			_					3 7	1		2004	
31 87	OF HU	5628	N   0:	5108 W   1	86 61 WAT		29 1967	A ID TEALD		3566 14	22	4 4	X8	1 311	1	1	0004	
							SPEED MART	0-	WET CODE	OBS.   OBSERV	CIAL							
					CODE	(m) OIR.	OR (mb		IUL8	DEPTHS	A 110143							
						24	524 09	8 019 (	003 7	14								
	MESSENGR	CAST	CARD			T		SPECIFIC VOLUME	<b>≥</b> △ 0	SOUND		PO4-P	TOTAL-P	NO2-N	NO3-N	SI 04-Si		5
	HR 1/10	Y NO.	TYPE	OEPTH (m)	7 ℃	s */	SIGMA-T	ANOMALY-X102	X 10 <sup>3</sup>	VELOCITY	O2 ml/l	yg - at/1	yg = 01/1	µg - σt/l	µg - at/1	pg - 01/1	pМ	c
	71K 1710	1					<u> </u>	-	<del>                                     </del>									
	1	1 [	STD	0000	0373	3469	2759	0005064	0000	14653		1 1						1.
	129	9	OBS	0000	0373	34693	2759			14653								
			STD	0010	0373	3469	2759	0005069	0005	14655								
			STD	0020	0372	3469	2759	0005073	0010									
	12	9	085	0023	0372	34693	2759			14656								
			STD	0030	0373	3469	2759	0005090	0015									
	12	9	OBS	0044	0374	34693	2759	0005076	00.25	14661								
			STD	0050 0075	0375 0378	3470 3472	2760 2761	0005075	0025									
	1.2	0	STD	0075	0381	34732	2761	0004711	00 30	14673								
	12	9		0100	0381	3473	2761	0004942	0050									
			STD	0125	0385	3474	2762	0004956	0063									
	12	Q	OBS	0132	0386	34740	2762	0001770		14681								
		•	STD	0150	0394	3479	2765	0004681	0075									
	12	9	085	0177	0404	34839	2768			14697								
			STD	0200	0413	3485	2767	0004476	0098	14705								
	12	9	OBS	0221	0417	34853	2767			14710								
			STD	0250	0412	3486	2768	0004478	0120									
	12	9	OBS	0264	0410	34856	2768		01/7	14714								
		_	STD	0300	0405	3486	2769	0004430	0142	14718								
	12	9	OBS STD	T0358 0400	0398	34860 3486	2770 2770	0004407	0186									
	12	0	085	0442	0390	34862	2771	3004401	0.00	14736								
	12	,	STD	0500	0384	3486	2772	0004356	0230									
	12	9	085	10529	0381	34863	2772			14746								
			STD	0600	0379	3487	2773	0004340	0274									
			STD	0700	0375	3487	2773	0004384	0317									
	12	9	OBS	0716	0374	34875	2774			14774								
			STD	0800	0369	3488	2774	0004332	0361									
		_	STD	0900	0364	3489	2775	0004309	0404									
	12	9	OBS	0910	0363	34887 3489	2776	0004340	0447	14802								
			STD	1000 1100	0359	3489	2776 2776	0004340	0491									
			STD	1200	0354	3488	2776	0004459	0>35									
			STD	1300	0352	3488	2776	0004523	0580									
			STD	1400	0352	3488	2776	0004610	0626									
	12	9	085	T1416	0352	34882	2776			14882								

																				1	1								
REFEREN	NCE	SHIP				CITUOS	ET.	MARS		STA	TION IGMT	TIME	Ve	AR			ATOR'S		OEPTH TO	UEFIR	OB	SERV	AVE /ATIONS	WE/		CLOUES		,	NOOC TATION
CODE	ID. NO.	COOE	LATITUE	1/10		GITU OE 1/10	PREFE	10°	110	MO I		HR,1/1		~"	CRUISE NO.		TATION		BOTTON	M S'MPL"	1		T PER SE	0.00		TYPE AMT	1		UMBER
	_	4411	6430		054	058 W	$\vdash$	186	60	01	11	125		967	B22	00	5		3566	16	17	4	4	X.		5 8			0005
31	870	HU	5629	N	051	998 W	) [	100	WA		+	WIND			-		AP. ℃	$\top$	NO.	1		71*	[-4]	1 ^	• 1	- 10	'	1	0000
										TRANS		SPE	ED	METER		RY	WET	VIS.	OBS.	OBCERN	CIAL A TIONS								
									CODE	(m)	OR	FO	RCE	(mbs)		1/8	RULR		OEPTH!	2									
										1	21	l sc	8	098	6 -0	25	-040	) 5	14	1									
	ſ	MESSENGR		CA						Τ					SPECIFIC	VOLU	MF :	Ε Δ 0	so	סאטכ		Ī	PO4-P	TOTA L-		102-N	NO3-N	SI O4Si	
		TIME	of NO.	TY		DEPTN	(m)	1	℃	S	٠/	s	IGMA	-1	ANOM	ALY-X1	97	E A 0 YN, M X 10 <sup>3</sup>	YEL	LOCITY	O 2 m1/		μg = 01/1	μg - ο1.		ig - al/l	μg = αl/l	νg - α1/1	
	ŀ	HR 1/10	+		-+			-		-		+		-			_					+			+	-			1-
			1 [	_	, TO	000	0	١ _	372	34	68	١,	2751	۱	000	510	o 1	0000	1 14	4652 I		- 1		}	-	ļ			ı
		12	6	08		000			372		675		275		900	,,,	•	,000		4652									
		12:	,		10	001			371		67		275		000	522	8 (	0005		4654									
					TO	002		_	371		67		275		000			010	14	4655									
		129	5	08		002	6	0	370	34	669	9 2	2751	В						4656									
				S	QT	003	0		371	_	67		275		000			0016		4657									
					OT	005		_	373	-	68	_	275	-	000	520	5 (	0026		4661									
		12	5	08		005	-		373		168		275				_			4661									
					OTO	007			380		71		276		000			0039		4669									
			_		OTO	010			388		73		276		000	499	4 1	0052		4676									
		12	5	08		010		_	389 385		173° 174		276. 276.		000	402	2 (	0064		4677									
					5TD	012		-	380		75		276		000			)0 7 <i>6</i>		4681									
		12		08		015			379		1741		276		000	700	•	,,,		4682									
		12	ס		5 T D	020			415		81		276		000	479	7 (	100		4705									
		12	5	QE		1020			418		819		276		•••		•			4708									
					510	025			411		84		276		000	458	0	124	1	4712									
		12	5	OE		025	8	0	410	34	84	8 2	276	8					14	4713									
				5	510	030	0	0	408	34	86		276	9	000	444	3 1	146		4719									
		12	5	OE	35	031			407		486		276							4721									
				S	OTO	040			409		+87		277		000	447	8	0191		4736									
		12	5	0.5		T041			409		+87		277		000	1. 1. 5	7	0/2/		4739									
			_		510	050			398		487		277		000	442	1	0436		4749 4750									
		12	>	OE		051			395		486		277 277		000	437	2	0280		4758									
		1.2		_	510	060 T062			377		486		211 277		000	451	,	0 2 0 (	-	4760									
		12	5		BS STD	070			375		488		211 277		000	431	0	0323		4772									
					STD	080			372		489		277			429	-	0366		4788									
		12	5		35	083			371		489		277							4792									
		- 4	-		STD	090			366	_	489		277		000	428	15	0409		4802									
					STO	100			361		490		277			429		0454	2 1	4817									
		12	.5		35	1104	+0	(	359	3	489	6	277	7						4822									
				5	STO	110			358		490		277			433		049		4832									
					STO	120			356		490		277			1437		0539		4848									
					5 T D	130			355		490		277			442		058		4864									
					STD		11)		353	34	490		277	8	000	1446	1	0627	( L	4880									
						140							277	0	000	A. E. 3	^	067	3 1	4906									
		12		5	STD	150	Ü	(	351 350	34	491 490		277 277		000	451	.0	0672		4896 4908									

REFE	ENCE	51110					L≅ MA	RSDEN	STATIO	1 TIME			ORIGII	NATOR'	's	DEPTH	MAX.		WAV	E	WEA-	CLOUD			100C	
CTRY	10.	COOE	LATITU		LON	GITUOF	ā 5 L	UARE	(GA		YE.	AR C	RUISE	STATIC		TO BOTTOM	DEPTN	00	SERVAT		THER	CODES		S.	UMBER	
CODE	NO.	-		1/10		1/10	7 10.	1*	MO OA	/ HR.1/	/10	_	NO.	NUMB	ER	- IOM	S'MPL'	S DUL	HGT P	ER SEA	CODE	TYPE A M	T		UMBER	
31	870	HU	5633	N	05	058 W	18	6 60	01 12	13	6 19	67	822 06	16		3566	15	23	3 3	s	X1	5 6			0006	
								WA	TER	WIN		BARO-	AIR TI	MP. °C	:	NO.	505		1 .					,		
									TRAHS. C	IR. S		METER	ORY	WE	VIS.	OBS. DEPTHS	OBSERV	CIAL /ATIONS								
								CODE	(m)	F	ORCE	(mbs1	BULB	BUL	_											
									2	6 5	06	051	-028	-05	3 7	14			1							
		MESSENGR	CAST	CAI									SPECIFIC VOL		₹ △ D DYN. M	101	סאט		7 00	4-P	TOTAL-P	NO2-N		5104-51		5
			및 NO.	TY		DEPTH (	m)	1 %	5 */		SIGMA-	-1	ANOMALY-	107	X 10 <sup>3</sup>	VELO	OCITY	O2 ml/		01/1	ug - 01/1	νg - αl/l	NO3-N yg - o1/l	yg - al/	рН	C
		HR 1/10	-						+	-		$\rightarrow$		$\rightarrow$	× 10	+				-				-	-	+
						0.00	_	0070	2.76	- 1	17/2	. !	00047		0000	١,,,				+			ł			
		12			TO	000		0378	3475		2763		00047	13	0000		656									
		13	Þ	08		000		0378	3475				00047	, ,	0005		656									
					TD	002		0376	3474		2763		00047		0005		657									
		13	6	08		002		0376	3474		2763		00041.	,,,	0009		659									
					TD	003		0376	3474		2763		00047.	48	0014		660									
					TD	005		0377	3474		2763		00047		0024		664									
		13	6	08		005		0377	3474		2763		00041		0024		664									
					TD	007		0376	3474		2763		00047	2.5	0036		667									
					TO	010		0375	3474		2763		00047		0048		671									
		13	6	08		010		0375	3474		2763						671									
			-		TD	012		0382	3476		2763		00047	59	0060		678									
					TD	015		0400	3478		2763		00048		0072		690									
		13	6	08		015	3	0403	347	78	2763						692									
				5	TD	020	0	0475	3493	3	2767	7	00045	52	0095	14	732									
		13	6	08		T020		0477	3493		2767						733									
					TD	025		0460	3494		2768		00045	52	0178		734									
		13	6	08		025		0458	349		2768				01.1		734									
		1.2			TD	030		0446	3490		2768		00045	22	0141		736									
		13	6	06	TD	030		0445	3490 3488		2769		00045	2.0	0186		736									
		13	4	06		1040		0419	3488		2769		00045	20	0100		742									
		13			TD	050		0399	348		2771		00044		0431		749									
		13	6	08		050		0398	3486		2770		00044		0231		750									
			-		TD	060		0384	3486		2771		00044	69	0276		759									
		13	6	08		061		0383	348		2771						760									
					TD	070		0377	3486		2772		00044	81	0320		773									
					TD	080	0	0372	3486		2773		00045	12	0365		787									
		13	6	08	S	081	6	0371	3486	53	2773	3				14	790									
				S	TD	090	0	0369	348	7	2774		00044	89	0410	14	803									
				S	TD	100	0	0367	348	3	2775	5	00044	72	0455	14	819									
		13	6	08		T101		0366	348		2775						822									
					TD	110		0364	3489		2775		00044		0500		834									
					TD	120		0362	3489		2776		00045		0545		850									
					TD	130		0359	3489		2776		00045		0591		866									
					TD.	140		0357	3489		2776		00046		0637		882									
			,		TD	150		0354	3489		2777		00046	63	0683		897									
		13	6	08	5	1152	1	0354	348	19	2777	1				14	901									

REFERENCE		- # A	AARSDEN	AIT NOITATE		ORIGINATO	DR*S	DEPTH	MAX.		WAVE	WEA-	CLOUD		1.5	ODC	
CIRY ID. CODE LATITUE	JE LON	2 2	SQUARE	(GMT)	YEAR	CRUISE STA		BOTTOM	OF		RVATIONS	THER	CODES		ST	ATION	
CODE NO.	1/10	* '1/10 Z	10, 1,	MO DAY HR	.1/10	NO. NUA	ABER	5011011	S'MPL'S	DIR	HGT PER SEA	-	TYPE AMT				
31 870 HU 5630	N 05	100 W 1	86 61 1	01   13   1	22 1967	B22 007		3566	14	34	3 4	X7	7 8			0007	
	'	- ' '	WAT	ER W	IND BARC	AIR TEMP.	°C	NO.	SPEC	141							
			COLOR		SPEED METE	R DRY V	VET COD	GEPTHS	OBSERVA	TIONS							
			CODE	lm)	FORCE [mbs		ULB	-									
				33	\$18 95	9 000 0	000 3	14	1								
MESSENGR CAST						SPECIFIC VOLUME	ξ Δ 0	50	UND		PO4-P	TOTAL-P	NO2-N	NO3-N	SI O4-Si		s
TIME OF NO.	TYPE	DEPTH (m)	T °C	s °4.	SIGMA-T	ANOMALY-X107	₹ Δ □ □YN, Λ X 10 <sup>3</sup>	VEL	OCITY	0 2 ml/l	μg + α1/1	μg - α1/1	μg - at/l	μg - αl/l	μg = αl/l	pH	c
HR 1/10							1 10						-				
						2221255	1					- 1		1			
	STD	0000	0364	3470	2760	0004955	0000		649								
122	OBS	0000	0364	34696	2760	0004957	000		649								
	STD	0010	0364	3470	2760				653								
122	STD	0020 0023	0364 0364	3470 34698	2760 2760	0004958	001		653								
122	OBS	0023	0364	3470	2761	0004954	001		654								
1.33	STD OBS	0046	0365	34711	2761	0004774	001		658								
122		0050	0367	3471	2761	0004900	002		659								
	STD	0075	0377	3473	2762	0004899	003		668								
122	STD OBS	0090	0381	34738	2762	0004033	000		672								
122	STD	0100	0381	3474	2762	0004877	004		673								
	STD	0125	0380	3475	2763	0004818	006		677								
122	085	0135	0380	34753	2763	000 1010	000		679								
122	STD	0150	0379	3475	2763	0004796	007		681								
122	085	T0182	0376	34755	2764	000			685								
122	STD	0200	0410	3481	2765	0004744	009		703								
122	085	0225	0438	34868	2766				720								
122	STD	0250	0434	3487	2767	0004572	012	0 14	722								
122	085	0268	0430	34879	2768			14	724								
	STD	0300	0417	3487	2769	0004469	014	3 14	723								
122	085	T0353	0403	34863	2770				726								
	STD	0400	0403	3488	2771	0004341	018	7 14	734								
122	085	0439	0400	34881	2771			14	739								
	STD	0500	0390	3487	2771	0004369	043	1 14	745								
122	OBS	T0529	0386	34869	2772			14	+748								
	STO	0600	0380	3487	2773	0004336	027	4 14	+758								
	STD	0700	0374	3488	2774	0004328	031	8 14	+772								
122	OBS	0721	0373	34877	2774			14	775								
	STD	0800	0370	3488	2774	0004341	036		787								
122	OBS	UBBOT	0367	34884	2775				799								
	STD	0900	0366	3489	2775	0004344	040		802								
	STD	1000	0363	3489	2776	0004379	044		817								
	STD	1100	0360	3489	2776	0004405	049		+833								
	STD	1200	0357	3489	2777	0004437	053		+848								
	STD	1300	0355	3490	2777	0004471	058		4864								
122	085	T1393	0353	34897	2777			1.	+879								

REFER	RENCE	SHIP					- e	MARS	OEN	STATIO				(	DRIGIN	ATOR'S		OEPTH	MA	X.		NAVE		WEA	CLOI			1	NODC	
CTRY	10.	CODE	LATITU		LON	GITUGE	NDCT	SOUA		IG#			YEAR	CRUISE	S	TATION		BOTTO	01	F		RVATI		THER	coc				UMBER	
CODE	NO.			1/10		17 10	=	10"	1"	MO GA	r HR.1.	/10		NO.	- 1	NUMBER	-	001101	M S'MP	L*S C	IR. I	GT PE	SEA	-	TYPE	TAL			D IVIDER	
31	870	HU	5630	N (	05	044 W	1	186	60	01 14	12	9 1	967	822	00	8		3566	6 1	7 (	01	4 4		XI	8	3			0008	
								[	WAT	ER	WIN		BARC	) a A	IR TE	WP. °C	vis.	NO.	-	PECIAL										
									COLOR	TRANS. C	IR.	PEED	METE	R C	RY	WET	COD	OBS. OEPTH	O B C C	RVATIC	IN S									
								-	CODE	tm1	_	ORCE	(mbs	_	NFB	anfa	-	-	1		_									
										] 3	10 S	13	07	8 -0	80	-026	7	14												
		MESSENGI	CAST	CA	RO.									SPECIFIC	VOLU	ME 3	E A O	SC	DUNG	Ι.		PO <sub>4</sub>	-P 1	OTAL-P	NO2-	N	NO3-N	SI O4-Si		S.
			T NO.	TY		DEPTH	m1	ī	°C	s */,	*	SIGM	A-T	ANOM	ALY-RI	07	χ 10 <sup>3</sup>	. VE	LOCITY	02	m1/l	NO . 1		µg = 01/1	ug - al		ug - at/l	µg - a1/l	pН	G
		HR 1/10	<u>'</u>				-		-		$\rightarrow$					$\rightarrow$		+		+						+				$^{\rm H}$
			l	1	TD	000	0	0.	359	3470	. !	276	, 1	000	467	1 /	0000	. 1	4647	1			- 1		[	-1	,			11
		12	0	0B		000			359	3470		276		000	401	1 (	, 000		4647											
		12	9		-	001			359	3470		276	_	0.00	488	3 (	0005		4649											
					TD	002			360	3470		276			490		0010		4651											
		12	9	OB		002			360	3470		276		000	,,,,	- '			4652											
			-		TD	003			360	3470		276		000	491	4 (	015		4653											
					TD	005			362	3470		276			492		025		4657											
		12	9	06		005		0:	362	3470	4	276						1	4658											
				S	TD	007	5	0:	363	3471		276	2	000	490	6 (	037	1	4661											
				S	TO	010	U	0:	366	3471		276	1	000	495	7 (	049	1	4667											
		12	9	08	S	011	0	0:	368	3471	19	276	2					1	4669											
				S	TD	012			369	347		276			485		0061		4672											
					TD	015			370	3475		276		000	479	9 (	0073		4680											
		12	9	08		016			382	3477		276							4685											
					TD	020			411	348		276		000	460	5 (	0097		4704											
		12	9	OB		T021			419	3485		276							4711											
					TD	025			413	3486		276		000	447	3 (	120		4713											
		12	9	08		027			410	3485		276		000	1.12	7 /	1163		4716											
		1.2	^		TD	030			407	3486		276		000	443	1 (	142		4719											
		12	9	08	TD	032			404 395	3486		277		000	438	) (	186		4722 4731											
		12	0	08		1043			391	3486		277		000	430	2 (	1.00		4735											
		12	7		TD	050			386	3487		277		000	432	5 (	230		4122 4743											
		12	0	08		054			383	3487		277		000	772	,	50		4750											
		12	7		TO	060			383	3468		277		000	430	9 (	273		4759											
		12	9	08		T066			383	3489		277		000		,			4769											
		1 2	-		TO	070			380	3490		277		000	424	2 (	ه ا د ر		4774											
					TD	080			371	3490		277			422		358		4787											
					TO	090			362	3490		277			421		400		4800											
		12	9	ОВ		090		0	362	3489	7	277						14	4800											
					TD	100	0	0:	360	3490	)	277	7	000	426	0 0	442	1	4816											
				S	TO	110	0	0:	358	3490	)	277	7	000	430	3 (	485	1	4832											
		12	9	ОВ	S	112	6	0:	357	3490	00	277	7					1	4836											
				S	TD	120	0	0:	356	3490	)	277	7	000	435	8 (	528	14	4848											
					TD	130			354	3490		277			440		572		4864											
					TD	140			353	3491		277			445		0017		4880											
					TO	150			353	3491		277		000	451	8 (	0661		4897											
		12	9	OB	S	T172	9	0:	353	349	11	277	8					1.	4936											

REFERENCE					a i	MAR	SDEN	STATION	TIME			С	RIGINA	ATOR'S		DEPTH	DEPTH		WA	VE 3V	WEA-	Crono			ODC	
CTRY ID.	CODE	LATITU	- 1	LONG	ITUDE SON	sou		IG M			EAR	CRUISE NO.		TATION UMBER		TO BOTTOA	OF	1		RONS	THER	CODES		21	ATION JMBER	
CODE NO.	-		1/10		1/10 =	10°	+ +		HR.1/		263	-			-+		2 14(1.5	+	_	PER SE	-	TYPE AM	1	_	2000	
31 87	O HU	5629	N	050	57 W	186		01 15			967	B22	005			3566	15	24	2	ا د	X1	8 4	1	1 '	0009	
							WAT		WINI	PEED	8ARC	)• <del> </del>	IR TEN		vis.	NO. 005.		ECIAL								
							COLOR	TRANS. D	IR.	OR ORCE	METE (mbs		RY JLB	WET	COOE	DEPTHS	OBSER	2 NOIT AV	1							
								2		13	08		-	-020	7	14			1							
							L		7 7		-	<u> </u>				<u> </u>			4	1						T
	MESSENGI		CAR		DEPTH (m)	1	℃	s °/.	.	SIGMA	т.	SPECIFIC	VOLUA	ME E	Δ D.	so	OUITY	02 ml/		04-2	TOTAL-P	NO2-N	NO3-N	51 O4-Si	pH	Š
	HR 1/10		TYP	E								ARUM			(103	VEL	OCILI		p,	- 01/1	μg = a1/l	μg - al/l	yg - at/1	µg = at/l		19
	'		S1	' סז	0000	. 0	363	3473		276	3	000	4720	0 0	000	1.4	649									
	14	4	083	S	0000	0	363	3472		276							649									
				TD	0010		365	3473		276			474		005		1652									
				TD	0020		1367	3473		276		000	478	3 0	009		1654									
	14	4	085		0025		368	3472		276		000	. 75				656									
	2.6			T D	0030 0049		367 364	3473 3473		276 276		000	475	4 0	014		4656 4658									
	14	14	08	5 70	0050		364	3473		276		000	473	6 0	024		4658									
				TD	0075		364	3474		276			467		036		4662									
	14	. 4.	08		0096		363	3475		276		•••		•			4665									
	- 17	-		TD	0100		363	3475		276		000	462	9 0	047		4666									
			_	TO	0125		365	3475		276			468		059		4671									
	14	4	08		0146		366	3474		276						14	4675									
	_			TD	0150	(	371	3475	,	276	4	000	475	0 0	071	14	4678									
	14	4	08	S	T0194	C	412	3482	3	276	5						4703									
				TD	0200	C	418	3484	,	276	6	000	460	4 0	094		4707									
	14	4	08	S	0243		440	3490		276							4724									
				TD	0250		1438	3490		276		000	442	1 0	117		4724									
	14	+4	08		0292		428	3488		276					100		4727									
				TD	0300		426	3488		276		000	449	2 0	139		4727									
	14	+4	08:		T0390		404	3487		277		000		, ,	102		4733									
				TP	0400		1403	3488		277		000	437	1 (	183		4734 4744									
	14	14	08	S TD	0487		391	3487 3488		277		000	432	1 0	427		4745									
	1.6	. 4.			0586		378	3487		277		000	102	-			4754									
	14	14	08	S TD	0600		378	3487		277		000	431	4 0	270		4757									
			_	TD	0700		377	3488		277			432		313		4773									
	14	s 4s	οв.		0783		375	3488		277			-		-		4786									
	- '			TD	0800		374	3489		277		000	431	2 0	356	1	4789									
				TD	0900		370	3490		277			427		399	1	4804									
	14	+4	08		T0984		366	3490		277						1	4816									
			S	TD	1000	(	365	3490		277		000	1428	4 (	442	1	4818									
			S	TD	1100		362	3491		277			431		485		4834									
			S	TO	1200		359	3497		277			1435		1528		4849									
			S	TD	1300		356	349		277			1438		572		4865									
				TD	1400		354	349		277			1443		616		4881									
				TD	1500		352	349.		277		000	447	6 (	1661		4897									
	14	44	08	S	T1508	(	352	349	11	277	9					1	4898									

REFERENCE CTBY ID. CODE NO.	SHIP	LATITUE		LONGITUDE 1		ARE		ION IGMT	3	YEAR	CRU	321	NATOR'	N	DEFT TO BOTTO	2	MAX. DEPTH OF	0	WAVE 8 SERVATION	COF	CODE	s	S	NODC TATION UMBER	
CODE NO.	$\perp$		1/10	1/10	10*	1.	WO	DAY	HR.1/10		N	0.	NUMBI	R	****	5	S'MPL"	S DIR	HGT PER	SEA COC	TYPE A	AT		Olelock	
31 87	0 HU	5630	N (	05102 W	186	61	01	18	137	1967	Ba	22 0:	10		356	36	03	25	د   4   د	X7	7 7 7	·		0010	
						WAI	ER		MIND	BAR	0-	AIR TI	EMP. °C	VIS	NO.		SPE	CIAL	]						
						COLOR	TRANS (m)	DIR	SPEE OR FORG	101.61		DRY BULB	80 F	COD	DEPT	HS C		/A TION:	s						
								22	SI	4 06	4 -	-038	-06	2 6	08	ż									
	MESSENGE TIME HR 1/10	및 NO.	CARD TYPE	DEPTH (m)	т	°C	s	٠/	SIC	SMA-T		OMALY-		≨ △ D OYN. A x 10 <sup>3</sup>		SOUN		0 2 m)	/I PO4-P		P NO2-N		SI O4-51		\$ 00
			ST	0000	0	384	34	78	2	765	00	0045.	22	0000	, 1	146	59				1.				1
	13	7	085			384		779		765						146									
			ST			383		78		765		0045.		0009		146									
			ST			382		78		765	0.0	0045	18	0009		146									
	13	7	085			382		780		765						146									
	13	7	ST			383	34			765	00	0045.	33	0014		46									
	15	1	085 ST			385	34	780		765 765	0.0	0045	7)	002		146									
			ST			386	34			765		0045		0034		146									
	13	7	085			387		783		765	•	0042	, 0	••		146									
			ST			387		78		765	00	0046	41	0046		146									
			ST			390		78		764		0046		0051		146									
	13	7	OBS		0	392	34	779		764						146									
			ST	D 0150	0	393	34	78	2	764	0.0	0047	48	0069	9 1	146	88								
	13	7	085	0195	0	402	34	811	2	766					1	146	99								
			ST	0200	0	407	34	82	2	766	0.0	0046.	38	0093	3 1	147	02								
	13	7	085		0	442	34	865		766						147									
			ST		0	446		87		765	00	0047	33	0116		147									
	13	7	085	0285	0	464	34	926	2	768					1	147	41								

REFE	RENCE	SHIP				LE M	ARSTEN	HOSTATZ	TIME		ORIG1-	NATOR	'S	пертн	MAX.	T	WA	VE	WEA	- CLOUE	T		NODC	
CODE	ID. NO.	CODE	LATITU		LONGITUDE	9 7	DUARE	(GM)	r)	YEAR	CRUISE	STATIO		TO BOTTOM	OEPTH OF	1 0	BSERV	ZHOHS	THER	CODES		2	TATION	
	_			1/10	1/10	/ 10			HR.1/10		NO.	ипм	ER	BOTTOM	S'MPL'S	S DIR.	HGI	PER SI	CODI	TITE AM	+	N	UMBER	
31	870	HU	5633	N	05053 W	18		01 19	176	1967				3566	16	24	6	2	X1	9 2			0011	
							WA		WIND	BAR	U-	EMP. 1	VIS	NO.	SPE	CIAL	}							
							COLOR	TRANS. DIR		4.1		WE	I CODE	OBS. DEPTHS		2 NOR A	:							
							0001	08	FORC	-	-005	-02		14			-							
								, , ,	310		-003		' '	14			Ļ							
		MESSENGI	CAST NO.	CARE	DEPTH	(m)	т "с	s °/	210	MA-T	SPECIFIC VOL	JAN.	₹ ∆ D DYN. M.	sou		02 ml/	/1 F	O4-P	TOTAL-	NO2-N	NO3-N	SI O4-SI	l	5
		HR 1/10		TYPE			_	"	"		ANOMALY-1	110'	x 103	VELO	CITY	0 2 11112	Ψ	g - ot/l	1/10 - وبر	μg - at/l	yg = 01/1	μg = a1/l	pН	č
																								$\top$
				ST	0 000	0	0380	3479	2.	766	00044	38 ່	0000	146	557		- 1			1	1	1	'	1.
		17	6	OBS			0380	3478	2	766				146	557									
				ST			0380	3478		766	00044		0004	146	559									
				ST			0379	3478		766	00044	58	0009	146										
		17	6	085			0379	3478		766				146										
				51			0379	3478		766	00044		0013	146										
		17	,	ST			0381	3479		766	00044	11	0022	146										
		17	0	085 ST			0381	3478° 3479		766 765	00045	3.0	0034	146										
				ST			0393	3479		765	00045		0034	146										
		17	6	OBS			0394	3479		765	00040		0045	146										
			•	51			0399	3480		765	00046	32	0057	146										
				ST			0402	3480		765	000464		0068	146										
		17	6	QBS	015	5	0403	3480	2 2	765				146	593									
				ST			0404	3482		766	00046	35	0092											
		17	6	OBS			0404	3481		766				147										
			,	ST			0406	3482		766	00046	84	0115	147										
		17	6	0BS			0408	34819		766	000404	0.7	0120	147										
		17	4	085			0427	3483 34828		764 764	000490	00	0139	147										
		4.6	0	ST			0421	3482		765	000499	6.7	0188	147										
		17	6	OBS			- 461	3482			30047.	- (	0200	2-11	74									
			-	ST			0407	3488		770	000448	82	0235	147	152									
		17	6	085			0404	3488		771	20071			147										
				ST	D 060	10	0387	3487		772	00044	28	0280	147										
		17	6	OBS	T062	2	0383	3486	7 2	772				147										
				51			0379	3487		773	00044		0324	147										
				ST			0374	3488		774	00044	24	0368	147										
		17	6	OBS			0373	3487		774				147										
				ST			0370	3488		774	000444		0413	148										
			,	ST			0366	3488		775	00044	74	0457	148										
		17	0	OBS ST			0364	34879 3488		775	000454	0.3	050.	148										
				ST			0362	3488		775 775	000454		0502	146										
				ST			0357	3469		776	00045		0593	146										
				ST			0355	3489		777	00045		0638	146										
				ST			0354	3490		778	00045		0684	148										
		17	6	085			0354	34904		778	200.3		3-04	149										
			-	000		-		3.70.		. , ,				4.7										

ICE						in the	MARS	DEN	STATIO	N TIN	NE S		C	RIGINA	TOR'S		DEPTH	MAX.		WAVE	1215	WEA-	CLO			N	000	
ID.	CODE	LATITUE			SITUOE	DRIFT	SQU.			MT)		re a R	CRUISE NO.	51	ATION JMBER		OT MOTTO	1 00	00	SERVA TIC		THER	TYPE				ATION JMBER	
NO.			1/10		1710	1=	10"	1*	MO D						-	-		2.W.L.		HGT PER	SEA	-						
870	HU	5628	N	051	.03 W		186	61	01 2			967		012			3566	17	25	14 3		X7	7	8		- (	0012	
								WAT	ER	W	ND_	BARC	1-	AIR TEM		- vis.	NO.	SPE	CIAL									
								COLOR	TRANS.	DIR.	SPEED	METE		DRY ULB	BULB	CODE	OBS. DEPTHS		ATIONS									
								CODE	-	_	FORCE	-		-		+ +												
									ļ	27	\$15	01	7 -0	44	054		14	L		L				_				
	MESSENGR		CAR	0	DEPTH	(m)	r	°C	S	·/	SIGM	A-T	SPECIFIC	VOLUA	,	AD.		UND	O2 ml/	PO 4		OTAL-P	NO <sub>2</sub>		NO3-N	5104-51	рН	S
	TIME 6	Y NO.	TYPE		00.111	0.11			-				ANUM	ALT-XIU		x 10 <sup>3</sup>	VEL	OCITY		νg - 0	171	1/10 - Qu	ng - c	31/1	yg - ot/1	µg - qt/1		C
		1	ST	rD	000	00	0	393	348	1	276	7 '	000	4347	7 0	000	14	663		'								
	133	3	OBS		000			393	348		276						14	663										
	15.		SI		001			393	346		276		000	14384	+ 0	0004		665										
			5 1		002			392	348		276		000	4389	9 0	0009	14	666										
	133	3	085		002	28	0	392	348	80	276	6						667										
			SI		003	30		392	348		276			14391		0013		668										
			ST	r D	009	5 Q		394	348		276		000	1443	2 0	0022		672										
	133	3	OBS		009			394	348		276							672										
			51		00			394	348		276			444		033		676										
			51		010		-	1393	348	_	270		000	447	• (	044		680										
	13:	3	085		010			393	348		270		0.00	.,		1067		681										
			51		01			1394	348		276			)455.		)056 )067		684										
			51		015			1396	348		276		000	1464	) (	1001		690										
	13:	3	OBS		019		-	1396	34		270		000		> (	090		698										
			51		020		-	397	348		27		000	468.	۷ (	,070		699										
	13:	3	OBS		T02			397	348		27		000	470	α (	114		711										
	13	2	083		02			1413	341		27		000	,4,0	•	,,,,		715										
	13	3		5 T D	030			1422	341		27		000	)459.	8 (	137		725										
	13	3	OB:		03			1425	341		27							729										
	10	,		TO	041			412	341		27		000	)433	5 (	182	14	738										
	13	3	0В5		04					900	-																	
				TO	05		0	397	34		27	71	000	)444	6 (	0226	14	748										
	13	3	08		05.		C	394	34	369	27	71						750										
			5	TD	06	00	C	383	34	36	27	71	000	)445	8 (	0270		1759										
	13	3	08:	S	T06.	24		380		359	27							761										
				TD	07			377	341		27			)446		3315		773										
				TD	08			374	34		27		000	)449	8 (	0000		+788										
	13	3	08		08			372		367	27		0.00	0450	, ,	0405		+794 +803										
				TD	09			1370	34		27 27			145U 1454		0450		818										
	1.2	2		TD	10 T10			)366 )364	34	877 877	27		000	J4 J4	0 (	0-70		1829										
	13	2	08:	5 TD	110			363	34,		27		004	)451	5 (	0495		+834										
				TD	12			360	34		27			3456		0540		849										
			_	TD.	13			358	34		27			3454		0586		4865										
				TD	14			355	34		27			0458		0032		881										
				TO	15			353	34		27			0464		0678		4897										
	13	3	08		T16			0351		896	27						14	4922										
		-	00	-	, 20																							

REFERENC

NCE	alla 2			5.5	MARSDEN	AIT NOITATE		ORIGINATO	R°S	DEPTH DEPTH		WAVE	WEA-	CLOUD		1	ODC	
ID.	CODE	LATITUI		LONGITUDE	SQUARE	(GMT)	YEAR	CRUISE STAT		OF S'MPL	1 00.	THGT PER SEA	THER	CODES			ATION JMBER	
NO.	-		1/10	1/10 =	10° 1°	MO DAY HR					3 UIR.							
870	HU	5632	NIC	05100 W			76 1967	7 822 013 AIR TEMP.		3566 14	24	4 3	1 X7	5 8	I	1 (	0013	
					COLOR		SPEED MET	0-	VIS.		CIAL ZATIONS							
					CODE	TRANS. DIR.	FORCE (mb		JLB COOR	DEPTHS DESCRI	AIIUNS							
						24	512 92	29 -073 -0	83 6	14								
	MESSENGP	1						SPECIFIC VOLUME		SOUND		PO4-P	TOTAL-P	NO2-N	NO <sub>3</sub> -N	SI 04-Si	_	S
	TIME	LCAST P NO.	CARD	DEPTH (m)	T *C	s °/	SIG MA -T	ANOMALT-X107	≨ ∆ D DYN. M. X 10 <sup>3</sup>	VEFOCITA	O 2 ml/l	yg = at/1	101×1-F	νg - σ1/1	μg = αt/l	οι (- αι/l	рΗ	C
	HR 1/10				-	_		-	A 10			+						+
		1				22	22.0	0001301	0.100	1////		1		}				1.1
			STO		0394	3483	2768	0004206	0000	14664								
	176	9	085	0000	0394	34834 3483	2768 2 <b>7</b> 68	0004255	0004	14666								
			ST		0395	3483	2768	0004272	0008	14668								
	176	5	OBS	0023	0396	34825	2767	300.272		14668								
			ST		0397	3463	2767	0004333	0013	14070								
	176	5	085	0045	0399	34825	2767			14673								
			ST	0050	0399	3483	2767	0004372	0022	14674								
			ST	0 0075	0399	3483	2767	0004389	0032	14678								
	176	5	OBS	0090	0399	34826	2767			14681								
			ST		0400	3483	2767	0004420	0043	14683								
			STI		0401	3483	2767	0004447	0055	14667								
	176	5	OBS	0133	0402	34828 3483	2767 2767	0004466	0066	14689								
	176	,	ST1	0 0150 0177	0402	34833	2767	0004466	0000	14697								
	TIC	9	STI		0405	3483	2767	0004520	0088	14701								
	176	6	085	0221	0406	34832	2767	000.520	0 - 00	14705								
		_	ST		0407	3484	2767	0004575	0111	14711								
	176	5	OBS	0266	0408	34836	2767			14714								
			ST	0 0300	0410	3406	2769	0004468	0133	14720								
	176	6	OBS	0356		34886												
			ST		0415	3489	2770	0004440	0178	14739								
	170	6	OBS		0418	34883	2770	0004601	0 ( ) 1	14748								
			ST		0410	3488	2770	0004501	0223	14758								
	176	Ь	085		0403	34881	2771 2772	0004436	0467	14762								
			ST		0376	3487	2773	0004433	0212	14772								
	170	6	OBS		0374	34862	2772	000 1133	0712	14775								
	211	0	ST		0373	3487	2773	0004449	0356	14788								
	170	6	OBS		0371	34872	2774			14804								
			ST		0371	3487	2774	0004498	0401	14804								
			ST		0369	3488	2774	0004524	0446	14820								
			ST	D 1100	0366	3488	2775	0004536	0491	14835								
			ST	D 1200	0363	3469	2776	0004546	0537	14851								
			ST		0360	3489	2776	0004555	0582	14866								
			ST		0357	3490	2777	0004562	0628	14882								
	17	6	OBS	T1421	0356	34898	2777			14885								

REFERENCE CTRY ID.	SHIP	LATITUI		LONGITUI	10.5		ARE		MT)		YEAR	C	RUISE		TOR'S		DEPTH TO BDTTO/	OF	d OB	WAVE SERVATIONS	CODE	CLOUD		S	NODC TATION SUMBER	
CODE NO.			1/10		1/10	10°	1.	MO D	AY H	IR,1/10		-+	NO.	NU	MBER	,		" S'MPL	'S OIR	HGT PER SI	A	TYPE AM	1	-		1
31 870	Hu	5630	-N-I	05058	15W	186				130	196	7	822				3560	04	34	14/3/	X7	7 8			0014	,l
							WA1	ER	٧	VIND		180-	_	TEM		VIS.	NO.	\$P	ECIAL							
							COLOR	t RANS.	DIR.	OR FORC	741	ETER nbs)	DR'		BULB	COOE	OBS.	S OBSER	SHOIL							
									33	523		03	-04	5	058	3 4	10	+								
									,,,	32.	,		-04	7	_	-1	_						Ι			
	MESSENG TIME HR 1/10	OF NO.	CAF		PTH (m)	T	"C		4.	SIG	MA-1		ANOMAL		.   0	E △ D YN. M. x 10 <sup>3</sup>		LOCITY	O2 ml/	PO4-P ug - o1/1	TOTAL-P pg - ot/I	NO2-N	ND3-N pg - ot/l	1 D4-S1 1/10 - Qu		o c
																										$\Box$
	1	' '	S	TO O	0000	0	387	348	5	2	770	ı	0004	055	· (	0000	14	4661		1		•	•			
	13	0	08		0000	0	387	348	45	2	770						14	4661								
			S	TD 0	010	0	388	348	4	21	770		0004	084	. (	0004	14	4663								
			S	TD 0	020	0	388	348	4	2	769		0004	121	. (	8000	1.4	4665								
	13	0	08	s c	0021	0	388	346	40	2	769						14	4665								
			S	TD C	0030	0	388	348	4	2	770		0004	108	(	0012		4666								
	13	0	OB	s c	0042	0	388	348	47		770							4668								
			S		0050	0	388	348	5		770		0004			0020		4670								
			S	TD C	0075	C	388	340	5	4	770		0004	159	. (	1600		4674								
	13	0	OB		0086	C	388	348			770							4676								
			S		0100	C	389	348	15		770		0004			0041		4678								
			S	TD C	125	C	390	348	4		769		0004	210	) (	0052		4683								
	13	0	08	\$ (	128	C	390	346	344		769							4683								
					150		390	348			770		0004	212	2 (	0062		4687								
	13	0	0.8		0169		390	348			770							4690								
					0200		389	348			770		0004	244	- (	0083		4695								
	13	0	0.8		0211		388	346			770							4696								
					0250		390	340			769		0004	343	. (	0105		4703								
	13	0	OB		0252		390	348			769							4704								
					0300		378	348			769		0004	428	5 (	0127		4706								
	13		90		0326		371	344			769							4708								
	13	30	0.8	35 (	0398	(	0406	341	368	2	770						1.	4735								

REFERENCE CODE N	H12		DE LDN	GITUDE TOON	MARSDEN SQUARE	STATION T IGMTI	YEAR		STAT	IDN	DEPTH TO BDTTDM	MAX. DEPTH OF S'MPL"		WAVE ERVATIONS	WEA- THER CODE	CLOUD CODES		ST	DDC ATION JMBER	
	$\neg$	J 5630			186 61		164 196	7 822	015		3566	34	30	4 3	X2	68			015	
31 8	70  HI	)   5630	) N(   U)	104 #1 1			WIND B	ARO- AI	R TEMP.	°C VIS	NO.		CIAL	(4)21	, ,,,			,	, 6 2 5	
					COLDE	TRANS. DIR.		ETER OI		LET CODE	DEPTHS		ZNDITA							
					-	33	7000	64 04	23 0	17 6	17									
	MESS	ENGR				1	<u> </u>	rar course				סאט		PO4-P	TOTAL-P	NO <sub>2</sub> -N	NO3-N	SI O4-Si		5
	TI	ME OF NO.	CARD TYPE	DEPTH (m)	1 0	s */	SIGMA-T	ANOMA	LY-X107	₹ △ D DYN. M R 10 <sup>3</sup>	. AEFE	DCITY	D 2 ml/1	µg = 01/1	μg = αI/I	yg - al/l	μg - αl/l	µg = al/l	pН	c
	FIX.	1/10																		71
	1	'	STD	0000	0395	3484	2769	0004	171	0000		664								
		133	OBS	0000	0395	34840				-001		664								
			STD	0010	0394	3483	2768	0004		0004		666								
		122	STD	0020 0027	0394	3483 34824	2768 2768	000	1200	0000		668								
		133	STD	0030	0393	3483	2768	0004	4257	0013		668								
			STD	0050	0395	3484	2769	0004		0021		673								
		133	OBS	0053	0395	34845	2769					673								
			STD	0075	0396	3485	2769		4211	0032		677								
			STD	0100	0398	3485	2769	000	4243	0042		682								
		133	OBS	0104 0125	0398 0399	34847 3485	2769 2769	000	4274	0053		683								
			STD	0125	0401	3485	2769		4306	0064		692								
		133	OBS	0156	0401	34849		000		•••		693								
			STD	0200	0399	3485	2769	000	4355	0085	14	699								
		133	OBS	T0208	0398	34845						700								
			STD	0250	0396	3485	2769	000	4365	0107		706								
		133	085	0258	0396 0393	34849 3485	2769 2769	000	4397	0129		707								
		133	STD 085	0306	0393	34846		000	4371	012		714								
		133	STD	0400	0399	3487	2771	000	4367	0173		734								
			STD	0500	0404	3488	2771	000	4453	0217	1 14	751								
		133	oBs	0510	0405	34884	2771					753								
			STO	0600	0392		2772	000	4410	0261		763								
		133	085	0612	0390			000		0309		764								
			ST0	0700 0800	0380 0372		2773 2773		4433 4468	0350		787								
		133	085	0821	0370			000		0-50		790								
		100	STO	0900	0365		2774	000	4444	0399	14	801								
			STD	1000	0360		2775	000	4396	0439		816								
		133	OBS	11031	0359							821								
			STD	1100	0358		2776		4381 4451	0483		+832 +848								
			STD	1200 1300	0356		2776 2777		4520	057		865								
			STD	1400	0355		2777		4589	061		+881								
			STD	1500	0353		2777	000	4643	0663		897								
		133	085	11585	0352					. 7		911								
			STD	1750 2000	0352 0348		2779 2780		4680 4746	0780		+939 +980								
		164	STD OBS	T2200	0340			000	-140	0096		011								
		104	STD	2500	0322		2783	000	4630	1132		055								
		164	085	T2781	0298	34937	7 2786				15	093								
			STD	3000	0287		2786	000	4465	1359		126								
		164	085	13350	0226							161								
		164	obs	3396	0214	34904	+ 2790				1:	164								

REFER	REHCE	SHIP			- E	MARSOEN	STATION TH		DRIGINATO	OR*S	DEPIN	MAX,		AVE	WEA-	CLONO			NODC
CODE	ID. NO.	CODE	LATITU		NGITUDE	SOUARE	(GMT)	YEAR		IIDN	10	OF		2 NOIT AV	THER	CODES		2.	UMBER
CODE		+		1/10	1/10 =	10° 1°	MD DAY HE	£1/10	NO. NU	NOCK	2.1	MPL"S C	OIR H	GT PER SE	A   0000	TYPE AM	1		
31	870	ol HU	5634	N 0	5101 W				B22 016		3566	13	33 3	3   2	X1	1 3 6	1		0016
						WAT		SPEED M.FT.		ZIV -	NO. OBS.	SPECIAL							
						CODE	IRANS DIR.	OR (mb		ULB COO	DEPTHS OF	ISERVA TIC	2 N C						
							35	514 11	5 027 0	17 7	14		$\neg$						
			Т				1 33	314   11	5   027   0	т , —	1 4 1	т -					1		
		MESSENG TIME	LCAST	CARD TYPE	DEPTH (m)	T ℃	s */	SIGM A-T	SPECIFIC VOLUME ANOMALT-1107	₹ △ D	. AEFOCI.		ml/l	PO4-P yg - at/l	TOTAL-P	NO2-H ug - at/l	ND3-N yg - 6t/l	SI D4-Si µg - at/1	ρN
		HR 1/10			ļ		-			x 10 <sup>3</sup>	122001	``		) y - 0.71	99 - 6171	pg - 001	yg - 601	pg - 0.71	
		1						ł											
				STD	0000	0374	3482	2769	0004132	0000	1465	5							
		13	4	OBS	0000	0374	34818	2769			1465								
				STD	0010	0373	3482	2769	0004130	0004									
				STD	0020	0372	3482	2769	0004126	0008									
		13	14	085	0024	0371 0371	34818 3482	2769	000/322	0013	1465								
		13		STD	0048	0372	34817	2769 2769	0004133	0012	1465								
		1,	-	STD	0050	0372	3482	2769	0004166	0021									
				STD	0075	0372	3481	2769	0004211	0031									
		13	4	OBS	0095	0372	34812	2769		•	1467								
				STD	0100	0373	3481	2769	0004251	0042	1467	71							
				STD	0125	0376	3482	2769	0004251	0052	1467	77							
		13	4	OBS	0143	0377	34824	2769			1468								
				STD	0150	0377	3483	2769	0004246	0063									
		13	4	OBS	T0190	0375	34828	2770	2201260	000.	1468								
		1.2		STD	0200	0375	3483	2770	0004259	0084									
		13	4	OBS STD	0235 0250	0376 0377	34821 3482	2769 2769	0004375	0106	1469								
		13	4	OBS	0278	0379	34819	2769	0004373	0100	1470								
			-	STD	0300	0378	3482	2769	0004434	0128									
		13	4	085	T0365	0376	34830	2770			1471								
				STD	0400	0385	3484	2770	0004446	0172	1474	26							
		13	4	OBS	0455	0393	34858	2770			1473	39							
				STD	0500	0392	3486	2770	0004465	0217									
		13	4	OBS	0543	0390	34868	2771			1475								
				STD	0600	0382	3487	2772	0004395	0261									
				STD	0700	0372	3486	2773	0004395	0305									
		13	4	OBS	0723 0800	0370 0367	34863	2773 2774	0004382	0349	1477								
				STD	0900	0363	3488	2775	0004349	0349									
		13	4	085	T0906	0363	34884	2775	0004347	0-73	1480								
		10	-	SID	1000	0360	3489	2776	0004351	0436		_							
				STD	1100	0358	3489	2776	0004389	0480	_								
				STD	1200	0356	3489	2777	0004432	0524									
				STD	1300	0355	3489	2777	0004479	0>68									
		13	4	OBS	1348	0355	34895	2777			1487								

																		,				
REFERENCE				E MAR	SDEN	STATION	TIME			DRIGIN	ATOR'S		DEPTH	MAX.		WAVE	WEA-	CLDUD		N.	IDDC	
CTRY ID. CDDE	LATITUD	E LOI		ā 5 l	JARE	(G MT)		YEAR	CRUISE	5	TATION		BOTTOM	DF	1	RVATIONS	THER	CDDES		ST	ATION	
CODE NO.		1/10	1/10	= 10*	1"	MD DAY	HR,1/10		ND.		1U M BEI	<u> </u>		S'MPL'	S DIR.	HGT PER SE	A	TYPE A.M	T-			
31 870 HU	56265	N 05	059 W	186	60	01 28	130	1967					3566	1.5	07	2 2	X 2	3 8			0017	1
. 52, 510, 110	,				WA	TER	WIND	BAR	,	AIR TE	WP. ℃	VIS.	ND.	SPE	CIAL							
					COLOR	TRANS. DIR.	SPEED			DRY	WET	CODE	DBS.		ZNOITAN							
					CDDE	(m)	FORC		-	IUEB	BULB		-	-								
						23	502	14	9   0	132	01.	7 7	14									
MESSENO	31 0.47	CARD					T		SPECIEI	c volu	ME	Σ Δ D	SDI	UND		PO 4-P	TOTAL-P	NO2-N	ND3~N	SI O4-St		s
TIME	of NO.	TYPE	DEPTH I	m1	T °C	s */	SIG	MA-T	ANON	ALY-II	07	2 10 <sup>3</sup>		OCITY	O2 ml/l	µg - 01/1	μg = ol/l	μg = at/1	μg = a1/1	µg - ot/1	pН	C
HR 1/1	0					-					-+											+H
į.						1	1				, 1					1		l	ļ			-   1
		STD	000		378	3482		769	000	0412	י כ	0000		657								
13	30	085	000		378	34824		769	0.07		-	000		657								
		STD	001		377	3482		169		0415		0004		660								
		STD	002		0376	3482		769	000	)415	7	8000										
13	30	085	002		0376	34819 3482		769 769	0.07	0417	h	0012		+660 +661								
		STD	003		0376	3482		169		041 <i>1</i> 0420		0012		665								
		STD			0378	34819	_	769	000	J420	0	0021		+665								
13	30	085	005		0383	34613		769	000	0420	10	UU 3 I		672								
		SID	007		0389	3484		769		0420		0042		678								
	2.0	STD	010		0389	34844		770	000	J-4 2 (	, ,	0042		+679								
1.	30	OBS	010	_	0393	3485		770	0.01	0420	0.0	0052		+684								
		STD	012		0398	3485		769		0427		0063		+691								
1.1	2.0	STD	015		0399	34854		769	001	, , ,	_	000.		+692								
1.	30	08S STD	020		0400	3485		769	000	0431	7	0084		+700								
11	30	085	T020		0400	3485		769				•••		+701								
1.	50	STD	025	_	0401	3486		770	000	0429	3	0106		+708								
1.5	30	085	025	-	0401	3486	_	770						+709								
1	50	STD	030	-	0389	3485	-	770	000	0432	1	0127		+711								
1:	30	OBS	030		0387	3484		770					14	+712								
*	50	STD	040		0379	3484		770	00	0437	18	017	1 14	4723								
1	30	085	T040		0378	3483		770					14	+724								
-		STD	050		0372	3482	2	769	00	0453	34	0416	6 14	4737								
1	30	085	050		0371	34820	0 2	769						4738								
		STD	060	U	0390	3486	2	771	00	045	56	046		4762								
1	30	085	060		0391	3486		771						4764								
		STD	070		0382	3487		772		0450	-	0306	_	4775								
		STD	080		0374	3486		773	00	0450	)5	035		4788								
1	30	085	081		0373	3486		773						4790								
		STD	090		0370	3487		774		045(		0396		4803								
		STD	100		0367	3488		775	00	044	/8	044		4819								
1	30	085	1101		0366	3488		775	0.0	266	1	04.11		4821								
		STD	110		0363	3489		776		0444		0486		4834								
		STD	120		0361	3489		776		0450		0530		4850								
		STD	130		0358	3489		776		0454		0570		4865								
		STD	140		0356	3489		777		0460		002		4881 4897								
		STD	150		0354	3489	_	777	00	046	00	066		4900								
1	30	085	T151	. (	0354	3489	0 2	777					1.	7700								

REFERENCE	SHIP			- ×	MARSDEN	IT MOITATE		ORIGINATO	OR'S	DEPTH MAX.		WAVE	WEA-	CLOUO	T		ODC	
CTRY IO.	CODE	LATITU		NGITUDE # DOWN	SOUARE	(GMT)	YEAR	CRUISE STAT		OF OF	0.0	SERVATIONS	THER	CODES		51	LMBER	
	+ +		1/10	1/10	10° 1°	MO DAY H			VREK	"JAW,5	OIR	HGT PER SEA		TYPE A M	_			
31 87	O HU	5630	5N   05	059 W	186 60		26 1967		1	3500 16	08	4 3	X2	3 8			0018	
					WA		SPEED MET		VIS.		CIAL							
					COLOR	TRANS. DIR.	OR (mb		VET CODE	DEPTHS OBSERV	2 MOITA							
						10	517 13	5 028 0	18 7	14								
		1 1		T		10	31.7   13		T									
	MESSENGR TIME		CARD	DEPTH (m)	1 "C	5 %.	SIGMA-T	SPECIFIC VOLUME	₹ △ D DYN. M X 10 <sup>3</sup>	. VELOCITY SOUND	O 2 m1/		TOTAL-P	NO <sub>2</sub> -N ug - ot/1	NO3-N	\$1 O4-\$i pg - 01/1	pН	č
	HR 1/10			ļ					X 10 <sup>3</sup>	11100		79 - 01/1	pg - 0171	pg - 01/1	yg - ot/l	pg = 0171		-
	}																	
	1.0	_	ST0	0000	0391	3485	2769	0004094	0000	14663								
	126	5	085	0000	0391	34845	2769	0004116	0.107	14663								
			STD	0010	0391	3484 3484	2769 2769	0004115	0004									
	126	4	085	0027	0390	34840	2769	0004136	0008	14666								
	120	,	STD	0030	0390	3484	2769	0004152	0012									
			STD	0050	0392	3484	2769	0004187	0021	14671								
	126	5	OBS	0053	0392	34837	2769			14672								
			STD	0075	0392	3484	2769	0004236	0031	14675								
			STD	0100	0392	3484	2769	0004267	0042									
	1,26	5	085	0106	0392	34836	2769			14681								
			STO	0125	0392	3484	2769	0004261	0053	14684								
			STD	0150	0392	3484	2769	0004285	0063									
	126	6	OBS	0161	0392	34841	2769			14690								
			STD	0200	0392	3484	2769	0004310	0085									
	126	6	085	T0214	0392	34844	2769	0006234	0107	14698								
	126	e	ST0 OBS	0250 0265	0388	3484 34836	2769 2769	0004338	0106	14703								
	120	b	STO	0300	0382	3483	2769	0004398	0128									
	126	6	OBS	0318	0380	34829	2769	0004338	0120	14710								
		•	STO	0400	0379	3482	2769	0004497	0173									
	126	6	OBS	0424	0378	34822	2769			14727								
			STD	0500	0379	3483	2769	0004552	0418	14740								
	126	6	OBS	0530	0380	34833	2770			14745								
	120	6	OBS	T0635	0380	34873	2773			14763								
			STO	0700	0379	3488	,2773	0004392	0307									
			STD	0800	0375	3488	2774	0004413	0351									
	126	6	OBS	0853	0373	34879	2774			14797								
			STO	0900	0369	3488	2774	0004416	0395									
	1.2	,	STD	1000	0362	3488	2775	0004419	0439									
	126	D	OBS	T1066 1100	0358 0358	34881 3488	2776 2776	0004435	0483	14826								
			STD	1200	0356	3468	2776	0004488	0728									
			STD	1300	0355	3489	2776	0004488	0573									
			STD	1400	0354	3489	2776	0004597	0619									
			STD	1500	0353	3489	2777	0004647	0665									
	12	6	OBS	T1637	0351	34892	2777			14919								

													_						
REFERENCE		- œ	MARSDEN	AIT MOITATE			ORIGINA	TOR'S		DEPTH	MAX. DEPTH		WAVE	WEA-	CLOUD			ODC	
CTRY ID. CODE LATIT		ACITODE PAGE	SOUARE	(GMT)	YEAR	CRUISE		ATION	B	TO	OF		RVATIONS	THER	CODES			LATION	
CODE NO.	1/10	1/10 =	10" 1"	MO DAY HR	.1/10	NO.	N.	JMBER	+		S'MPL'S	DIR.	HGT PER SE	A	TYPE AM	-			
31 870 HU 563	1 N 05	033 W	186 60	01 30 1	78 196				3	1566	17	08	5 6	X 6	5 8			0019	i
			WAT	ER W	IND 8A	RO-	AIR TEM	₽. ℃	/10	NO.	SPEC	I IAC							
			COLOR	TRANS. DIR.	OH I .		DRY	WET CO		OBS.	OBSERV								
			CODE	$\longrightarrow$	FORCE IM		$\rightarrow$												
				10	525 8	65 0	131	031 6	5	13									
MESSENGR CAST	CARD		ī °c				C VOLUM		D	sou	ONI	O2 ml/l	PO4=P	TDTAL-P	NO2=N	NO3-N	SI 04-5i		5
TIME OF NO.	TYPE	DEPTH (m)	1 6	s */	SIGMA-T	ANON	AALY-X10	7 X 10 X 10	03	VELO	CITY	O2 mi/1	μg = σ1/l	μg = a1/l	yg - at/l	μg = a1/1	μg + at/1	pН	č
HR 1/10	+	-		<u> </u>				+		_									$\Box$
	670	0000	0351	3475	2766	1 000	0441	. ່ວບເ	20	1 144	645		1 1			1	'	1	1.
170	STD	0000	0351	34752	2766	000	,,,,,,		00		645								
178	OBS STD	0010	0351	3475	2766	000	0442	7 000	04		646								
	STD	0020	0351	3475	2766		04436				648								
178	OBS	0027	0351	34750	2766	•			•		649								
110	STO	0030	0351	3475	2766	000	)445	00	13		649								
	STO	0050	0350	3475	2766	000	0446	2 002	22	14	652								
178	085	0054	0350	34750	2766					14	653								
	ST0	0075	0351	3476	2767	000	04413	3 003	33	14	657								
	STD	0100	0352	3476	2767	000	3444	3 004	44	14	661								
178	OBS	0107	0352	34764	2767						663								
	STO	0125	0357	3477	2767		0444				668								
	STD	0150	0363	3477	2766	000	0452	1 00	67		675								
178	085	0165	0366	34778	2767						678								
	STD	0200	0370	3479	2767	000	04484	4 001	89		686								
178	085	T0222 0250	0372 0373	34791 3480	2767 2768	0.00	04484	4 01.	10		691 696								
170	STD 085	0275	0378	34810	2768	000	0770	- 01			702								
178	STO	0300	0393	3483	2768	000	0451	2 01:	34		713								
178	085	0332	0407	34861	2769	•					724								
1.0	STO	0400	0396	3486	2770	000	04400	0 01	79	14	731								
	STD	0500	0385	3486	2771	000	0436	7 02	22	14	743								
178	085	0553	0381	34863	2772					14	750								
	STO	0600	0380	3487	2773	000	0435	1 04	66		758								
178	085	T0663	0378	34880	2774						767								
	STD	0700	0377	3488	2774		0431				773								
	STD	0800	0374	3489	2774	00	0434.	2 03	53		788								
178	085	0884	0371	34889	2775						801								
	STO	0900	0370	3489	2775		0435				804								
	STD	1000	0364	3489	2776		0436				818								
	STO	1100	0359	3489	2776	00	0439	3 04	84		832								
178	085	T1113	0358	34892	2776	0.0	0.00		20		834								
	STD	1200	0357	3489	2777		0442				848								
	STD	1300	0356	3490	2777		0447				865 861								
	STD	1400 1500	0355 0354	3490 3490	2777 2778		0451 0457				898								
170	STD	T1720	0352	34908	2778	00	0.451		-		934								
178	OBS	11720	0392	24700	2119					14	, ,,,								

REFERENC	·F I				MARSOEN	STATION TIA	AE	ORIGINATO	OR'S	DEPTH	MAX. DEPTH		WAVE	WEA-	CLOUD		1,	ATION	
CTRY IC	SHIP	LATITUDE	LON	SITUDE E	SOUARE	(GMT)	YEAR		TION	TO BOTTOM	OF I		HGT PER SEA	THER	TYPE AM			UMBER	
CODE NO		1/1	10	1/10	10° 1° /	MO DAY HR	1/10	NO. NU	MBER		3 MPL 3								
31 8	70 HU	5629 N	051	111 W			22 1967			3566	15	_06,1	4 2	X5	5 8	l	1 1	00201	
. 31. 0					WAT	ER W	IND BAR		V15.	NO. 085.	SPEC	IAL							
					COLOR	TRANS OIR	SPEED METI		WET CODE	DEPTHS	OBSERVA	ATIONS							
					0001	$\rightarrow$	510 86		020 6	14									
						1001	310   00		T = A D				T			NO N	SI O4-Si		5
	MESSENGR TIME 0		CARD	DEPTH (m)	1.0	5 %.	SIGMA-T	SPECIFIC VOLUME ANDMALY-X107	DYN. M		DCITY	02 mVI	PO4P µg - m1/1	TOTAL-P pg = m1/1	NO2-N µg - αl/l	NO <sub>3</sub> -N	υg - α1/1	pН	c
	HR 1/10	NO.	TYPE		ļ				X 10-				-						+
							1	1		1						l	i	I	11
	' '		STD	0000	0387	3482	2768	0004235	0000		661								
	122	. (	280	0000	0387	34821	2768	0004248	0004		661								
			STD	0010	0387 0386	3482 3482	2768 2768	0004254	0008		664								
	122		STD DBS	0020	0386	34817	2768	3004234	-		664								
	122		ST0	0030	0386	3482	2768	0004278	0013		665								
	122	, (	OBS	0048	0387	34820	2768			14	669								
	***		STD	0050	0387	3482	2768	0004283	0021		669								
			STD	0075	0387	3483	2769	0004246	0032		673								
	122	2 (	085	0095	0387	34836	2769		2011		677								
			STD	0100	0387	3484	2769	0004220	0041		678								
			STD	0125	0389	3484	2769	0004237	005		686								
	122	2 (	085	0142 0150	0390 0396	34840 3485	2769 2769	0004251	0064		690								
			STD DBS	T0192	0403	34862	2769	000 1232			700								
	122	٠ '	STD	0200	0395	3485	2769	0004288	008	5 14	697								
	122	,	OBS	0236	0371	34813	2769			14	+693								
		•	STD	0250	0369	3481	2769	0004339	010		694								
	122	2 (	085	0283	0365	34816	2770				698								
			STD	0300	0365	3482	2770	0004327	012	-	701								
	122	2 (	OBS	0378	0365	34814	2770	0006630	017		4714 4718								
			STD	0400	0366	3482 34817	2770 2770	0004428	017.	_	4730								
	122	2	085	0471 0500	0367 0375	3484	2771	0004430	041	_	4738								
	121	2	STD OBS	T0566	0386	34868	2772				6754								
	122	2	STD	0600	0382	3487	2772	0004395	026	1 1	4758								
			STD	0700	0372	3487	2773	0004388			4771								
	12	2	085	0757	0368	34863	2773				4778								
			STD	0800	0368	3487	2774	0004392			4786								
			STD	0900	0367	3488	2775	0004393	039		4802 4810								
	12.	2	OBS	0952	0366	34885	2775	0004417	7 043		4818								
			STD	1000	0365 0363	3489 3489	2775 2776	0004470		-	4834								
			STD	1200	0361	3489	2776	0004522			4850								
			STD	1300	0358	3489	2776	0004560		1 1	4865								
			STD	1400	0355	3489	2777	0004596			4881								
	12	2	OBS	T1454	0353	34889	2777			1.	4889								
		-	-																

Table IV. Observed and interpolated oceanographic data for stations taken by USCGC BIBB at Ocean Station BRAVO, 24 February-14 March 1967, prepared from NODC listing No. 31-875 BX.

																											_		
REFERENCE					-	≝ MAF	SOEH	STAT	ION TI	M E			0	RIGINA	ATOR'S		۵	EPTH	MAX. DEPTH		WA	A VE	15	WEA-	Cronc			ODC	
CTRY ID.	CODE	LATITU		LONGITUD	10		JARE		GMTI		YE AR	,  c	NO.		TATION			MOTT	OF S'MPL'S	1		T PER	_	THER	TYPE AN			UMBER	
CDDE NO.	$\vdash$		1/10		/10	10*	1*		DAY H			+	-							-	-	1	36.4	<u> </u>		1	_		
31 875	BX	5632	N.	05104	W	186	$\rightarrow$			_	196	7	B23	00			4	547	15	04	14	141		X2	6 8	1		0001	l
							WA		1	/IND SPEED		ARO- ETER	-	IR TEA	WET	- vis,		NO.		CIAL									
							COLOR	TRANS	DIR.	OR		nbs)		JLB	BULB	COD		EPTHS	ORZEKA	'A TION S									
								_	08	520		91	0	28	01	7 7	$^{+}$	14			1								
								-	00	320	,   0	$\top$					-	_			╁					1	T		
	MESSENGR	CAST NO.	CARE	DEP	H (m)		r *c	s	٠/	SIG	MA-T	. 1	ANOM	VOLU:	ME (	E A D	۸.	SOU.		02 ml/		PO4-1 ug = a1.		9 - bi/l	NO2-N ug - ol/l	NO3-N	\$1 O4-51 1/10 - 01/1	pН	S C
	HR 1/10		itre					1		1		1			_	X 10 <sup>3</sup>					-1		-			yg • a1/1	pg - 617 1	-	44
								1																			1		
	'		ST	D 0	000	(	346	34	80		770		000	402	6	0000	0		643										
	136	6	085		000		346		797		770								643										
			ST		010		346		80		770		000			000			645										
			ST		20		345		79		770		000	406	י כ	0001	B		646										
	13	6	085		25		345		792		770		000	407	4	001	2		647 648										
			ST ST		)30 )50		345		79 80		770		000			002			652										
	130	4	085		352		0347		795		770		000	70)	4	002	•		652										
	10	0	51		075		0347		79		770		000	412	9	003	1		656										
			ST		100		0347	_	79	_	769		000			004			660										
	13	6	OBS		103		0347	34	790		769							146	660										
		•	51		125		0347	34	79	27	770		000	418	6	005	1	146	664										
			51	D 0	150		0347	34	79	27	770		000	419	2	006	2	144	668										
	13	6	085		155		0347		793		770								669										
			51		200		0347		79		770		000	422	7	008	3		676										
	13	6	085		207		0347	-	794		770								678										
			51		250		0349	-	80		770		000	424	8	010	4		685										
	13	6	083		258		0349		800		770 770		000	4.24	a	012	6		687 693										
		,	S1 089		300 310		0348 0348		802		770		000	720		0 . 2	2		695										
	13	6	51		400		0349		81		771		000	430	1	016	8		710										
	13	4	083	_	409		0349		810		771		000		•		_		712										
	13	•	51		500		0348		81		771		000	438	3	021	2		727										
	13	6	085	_	514		0348		807		771							14	729										
		-	51		600		0383		87		772		000	438	4	025	5	14	759										
	13	6	085		618		0388		876		772								764										
			51		700		0385		89		774		000			029			777										
			51	-	800		0380		89		774		000	438	1	034	3		791										
	13	6	085		824		0379		895		775		000		0	010			795										
			SI		900		0372		90		775			1434		048			818										
	10	,	SI		000		0365 0363		+90 +895		776 776		000	1434		043	0		822										
	13	0	085		030 100		0362		90		777		000	435	0	047	3		834										
			51		200		0360	_	90		777		000			051			850										
			2.		300		0358		90		777			)446	-	056			865										
			2.		400		0356		490		777			1452		000	_		881										
			2.		500		0354		90		778			458		065			898										
	13	6	08		539		0353		906		778								904										
	13		V 4.	- 1 4						_	. , .																		

REFERE	NCE SH	10		-	# MARSOEN	STATION TI		ORIGINA	ATOR'S	DEFIN	MAX.	WAVE	WEA	CLOUD	T -		NDDC	
	10.   00			ONGITUDE	SOUARE	IGMT)	YEAR		TATION	DO TTO	OF	BSERVATIONS	THER	CODES			STATION NUMBER	
	NO.		1/10	1/10	_ 10. 1.	MO DAY H			IUM BER	57	MPL'S DIR	HGT PER SI	A	TYPE AM	1			
31	875 B	x   562	6 N C	5056 W	186 60					3567	13 00	اءادا	X1	016	1		0002	
							SPEED MAT		VIS.	NO. 085.	SPECIAL							
					COFO		OR /_L		WET COD	DEPTHS OF	SERVATION	2						
						08	S10 15	-	011 7	14		-						
						00	310 12	72 011				1						
	ALES T	ME OF NO	CARD	DEPTH (m	) T °C	5 %.	SIGMA-T	SPECIFIC VOLU	AZ LUTN. N			/I PO4-P	TOTAL-P		NO3-N	SI O4-S		SC
		1/10 NO.	TYPE	1				AHOMALI-AII	x 10 <sup>3</sup>	, AFFOCI	14	yg - a1/1	Nto - gu	μg - ot/1	yg - 01/1	µg = 01/		C
																		П
	'	,	STO	0000	0351	3479	2769	000410	3 0000	1464	15	'						
		131	OBS	0000	0351	34793	2769			1464	5							
			ST		0351	3479	2769	000410										
			STO			3479	2769	000411	1 0001									
		131	OBS	0022	-	34793	2769			1464								
			STI			3479	2769	000413	6 001									
		131	OBS	0045	0352	34790	2769	202137		1465								
			ST			3479	2769	000417										
		121	STI		0351	3479	2769	000416	3 003									
		131	OBS	0089		34794 3479	2769	000417	3 004	1465 1 1466								
			STO			3480	2769 2770	000417										
		131	OBS	0134		34796	2770	000410	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1466								
		101	STI	-		3480	2769	000422	0 006									
		131	OBS	T0178		34792	2769			1467								
			STI			3479	2769	000429	3 008	4 1467	79							
		131	OBS	0220	0354	34794	2769			1468	33							
			ST	0250	0354	3480	2770	000429	3 010	5 1468	38							
		131	OBS	0263		34802	2770			1469								
			STI			3480	2770	000432	4 012									
		131	OBS	T0344		34807	2770		1-	1470								
		121	STI			3486	2771	000434	0 017									
		131	OBS	0429 0500		34876 3488	2771 2772	000436	5 021	147 <i>±</i> 4 1474								
		131	085	70513		34875	2772	000436	2 021	1474								
		131	STI			3488	2773	000432	4 025									
		131	085	0681		34880	2774	000.52		1477								
			STI			3488	2774	000431	4 0300									
			ST			3489	2775	000429	3 034	3 1478	37							
		131	OBS	T0855	0369	34892	2775			1479	96							
			ST	0900	0367	3489	2776	000430	4 0386	1480	02							
			ST			3489	2776	000433										
			STI			3490	2776	000438	0 047									
			ST			3490	2777	000443										
			ST			3490	2777	000448	1 056.									
		131	OBS	T1314	0357	34897	2777			1486	57							

CTRY ID. COOF LATITU	GE LOI	ACITUDE POUR	MARSOEN SOUARE	STATION TH	ME YEAR	ORIGINATO		DEPTH DEPTH		WAVE SERVATIONS	WEA-	CLOUG			NODC	
CODE NO. COOE LATITU	1/10	1/10 2	10" 1"	MO DAY H		CRUISE STAT	ION IBER	SOTTOM S MPL		HGT PER SEA	CODE	TYPE AM		S N	UMBER	
31 875 BX 5632	N 05	105 W	186 61	03 01 1	32 1967	823 003		3567 14	1	1 2	X2	7 8	1		0003	
			WAT		IND SAR	AID TEAAR	°C	NO		]	1 ^2	1 110	'	'	0003	
			COLOR	TRANS. OIR.	SPEED MET OR (mb	ER DRY W	ET COOK	OBS. OBSER	CIAL VATIONS							
				17	\$17 94		-	14								
MESSENGR CAST	CARD			1	0									-		$\neg$
TIME OF NO.	TYPE	DEPTH (m)	τ *c	5 */	SIGMA-T	ANOMALY-X107	₹ △ 0 0YN, M. x 10 <sup>3</sup>	NEFOCITA 200HD	O2 ml/	PO4-P pg - 01/1	TOTAL—P µg • ni/l	NO2-H ug - at/l	NO3-N pg - at/l	\$1 O4~\$i  \la = gu	рΗ	Š
HX 17.10							× 10	+-		-			pg + on	26 - 0.71		-11
	STD	0000	0348	3481	2771	0003969	0000	14644			ı					
132	085	0000	0348	34807	2771	0003707	0000	14644								
	STD	0010	0348	3481	2771	0003959	0004									
	STD	0020	0349	3481	2771	0003972	0008									
132	085	0023	0349	34812	2771			14648								
122	STD 085	0030	0349	3481	2771	0003966	0012									
132	STD	0048 0050	0349 0349	34810 3481	2771	0003000	0000	14652								
	STD	0075	0347	3481	2771 2771	0003999	0020	14653								
132	OBS	0095	0346	34804	2771	0004001	0030	14659								
	STD	0100	0346	3480	2771	0004057	0040	14660								
	STD	0125	0345	3481	2771	0004066	0050	14663								
132	085	0143	0345	34806	2771			14666								
	STD	0150	0345	3481	2771	0004078	0060	14668								
132	OBS	T0195	0347	34809	2771			14676								
122	STD	0200	0347	3481	2771	0004115	0081	14677								
132	OBS STU	0240 0250	0348 0347	34808 3481	2771 2771	0006166	0101	14684								
132	085	0288	0345	34806	2771	0004164	0101	14685								
	STD	0300	0348	3481	2771	0004201	0122	14694								
132	OBS	T0382	0365	34841	2772			14715								
	STD	0400	0369	3485	2772	0004203	0164	14719								
132	OBS	0477	0378	34864	2772			14736								
100	STD	0500	0376	3487	2773	0004254	0207	14739								
132	085	10574	0372	34868	2773			14750								
	STD STD	0600 0700	0372 0373	3487	2773	0004266	0249	14754								
132	085	0762	0374	3489 34897	2775 2775	0004216	0292	14772								
152	STD	0800	0371	3490	2776	0004226	0334	14782 14787								
	STD	0900	0365	3490	2776	0004236	0376	14802								
132	085	T0950	0362	34898	2777	000 1230	0310	14809								
	STD	1000	0361	3490	2777	0004261	0419	14817								
	STD	1100	0359	3490	2777	0004323	0462	14833								
	STD	1200	0358	3490	2777	0004384	0505	14849								
	STD	1300	0356	3490	2777	0004443	0549	14865								
132	STD OBS	1400 T1447	0354 0353	3490	2778	0004501	0594	14881								
172	703	17441	9303	34903	2778			14888								

REFERENCE SHIP		E E N	ARSDEN	STATION TIA		DRIGINATO	R*S	DEPTH	MAX. DEPTH		WAVE	WEA-	CLDUD			NODC
CTRY ID. CODE LATITU		. 07	O" 1°	IGMT)	YEAR	CRUISE STAT	IDH	TO BOTTOM	1 00		HGT FER SE	THER	TYPE AMI		N 2.	UMBER
31 875 8x 5631				03 03 1				45/17								0001
( 31 97 97 ) 3631	n   US	106 W   1	86 61 WAT		IND.	A ID TEAAD	~ T	3547	16	33	4 [2]	X8	6 4	1	1	0004
				TRANS. DIR.	SPEED MET	R DRY V	VIS.	DAT	SPEC OBSERVA							
			CDDE	(W)	FORCE [MBI		ULB	-								
				32	S25 92	6 -006 -0	11 4	14	L							
MESSENGR CAST	CARD TYPE	DEPTH (m)	T ℃	5 %.	SIGMA-1	SPECIFIC VOLUME	₹ △ D DYN, M		OCITY	O2 ml/1	PO <sub>4</sub> -P	TOTAL-P	NO <sub>2</sub> -N	ND3-N	SID4-Si	рН
HR 1/10	1172					Allowing - kit	X 10 <sup>3</sup>	V. C. L.	JCIII		μg = αt/l	yg - a1/l	1/10 - Bt	μg - a1/I	µg - α1/1	
								1								
100	STD	0000	0341													
133	08S STD	0000	0341													
	STD	0020	0341													
133	085	0026	0341													
	STD	0030	0341													
	STD	0050	0343													
133	085	0052	0343													
	STD STD	0075 0100	0343													
133	OBS	0104	0344													
	STD	0125	0345													
	STD	0150	0347													
133	085	0155	0347													
100	510	0200	0348													
133	OBS STD	T0210 0250	0349 0356													
133	085	0260	0358													
	STO	0300	0365													
133	085	0312	0366													
300	STO	0400	0369													
133	OBS STD	T0417 0500	0370 0355													
133	085	0520	0353													
100	510	0600	0354													
133	085	T0624	0354													
	STO	0700	0364													
	STD	0800	0370													
133	085 ST0	0836 0900	0371 0366													
	STD	1000	0359													
133	085	T1045	0357													
	STO	1100	0356													
	STO	1200	0355													
	STD	1300	0353													
	STD	1400	0352													
122	510	1500	0350													
133	085	T1580	0349													

Second   S	REFERENCE	SHIP			. La	MARSDEN	STATION TH							MAX. DEPTH	D.81	WAVE		CLDUD			NODC	
31 875 8x   5627 N   05097 W   186 8d   03 05 150 1967 823   050   1967 823   050   3567   35   25   3 3 3     0005   0500   0	CTRY ID.				I POR				EAS C			}		OF	1		2000	1			TATION	
			_											1		<del>                                     </del>		1	1	_		1
	31 87	5  8 X   5	627 N	05057	MI I					A ID TO		$\vdash$		35	25	3 3	X2	1 5 1 8	1	- 1	0005	4
CODE   10   10   10   10   10   10   10   1								SPEED		-	T	VIS.	OBS.									
24   \$26   895   000   -006   3   19						CODE	(m) DIR.	DR FDRCE		BULB	BULB	CODE	DEPTHS	DESEKA	A IIDNS					•		
STD   0000   0352   3483   2772   000383   0000   14646   14648   14							24		895	000	-006	3	19									
STD   0000   0352   3483   2772   0003833   0000   14646   1		[					1	1					-							Ι	T	Т
STD   0000   0352   3483   2772   0003833   0000   14646   1		TIME or			H (m)	1 10	5 %.	SIGMA	T   1	SPECIFIC VOLI	IME DI	rH. Μ.	. VELD		O 2 m1/			NO2-N			Hq	1
135		HR 1/10		-			-	<del> </del>	-		,	( 103	1			74 - 4.7.	20.71	2g - 001	pg - 6171	pg - di)	-	1,
135				_			1			!!			1									1
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STD   0075   0354   3483   2772   0003924   0029   14669     STD   0100   0353   3483   2772   0003940   0039   14663     STD   0125   0353   3483   2772   0003940   0039   14666     STD   0125   0353   3483   2772   0003946   0049   14667     STD   0150   0355   3483   2772   0003965   0059   14672     STD   0200   0358   34835   2772   0003990   0079   14682     STD   0200   0358   34845   2772   0003990   0079   14682     STD   0250   0363   3485   2772   0004038   0099   14692     STD   0300   0366   34845   2772   0004038   0099   14692     STD   0300   0366   3485   2772   0004090   0119   14702     STD   0300   0366   3485   2772   0004090   0119   14702     STD   0300   0366   3485   2772   0004090   0119   14702     STD   0400   0372   3487   2773   0004085   0160   14721     STD   0500   0381   3489   2774   0004122   0201   14782     STD   0500   0381   3489   2774   0004122   0201   14774     STD   0500   0378   3490   2775   0004165   0284   14777     STD   0500   0362   3490   2776   0004118   0368   14802     STD   0500   0362   3490   2776   0004118   0368   14802     STD   0500   0366   3490   2776   0004218   0368   14802     STD   0500   0367   3491   2778   0004257   0410   14817     STD   0500   0357   3491   2778   0004257   0410   14817     STD   0500   0357   3491   2778   0004218   0368   14802     STD   1000   0357   3491   2778   0004218   0368   14802     STD   1000   0357   3491   2778   0004224   0496   14848     STD   1500   0357   3491   2778   0004257   0410   14817     STD   1500   0357   3491   2778   0004326   0496   14864     STD   1500   0357   3491   2778   0004420   0458   14804     STD   1500   0357   3491   2778   0004420   0459   14833     STD   1500   0357   3491   2778   0004420   0459   14834     STD   1500   0357   3491   2778   0004450   0658   14956     STD   1500   0357   3493   2784   0004550   0740   14939     135   085   71853   0351   34929   2780   0004550   0740   14939     135   085   71853   0351   34929   2780   0004550   0740   14939     136   085		135			)55	0354	34828					-										
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135			S	TD 05	00	0381	3489	2774	4	000412	2 0	201	14	742								
STD   0700   0378   3490   2775   0004165   0284   14774     135   085   70723   0377   34908   2776   14777     STD   0800   0372   3491   2776   0004171   0326   14788     STD   0900   0366   3490   2776   0004218   0368   14802     135   085   0975   0362   34900   2777   14813     STD   1000   0361   3490   2777   0004257   0410   14817     STD   1100   0359   3490   2777   0004257   0410   14817     STD   1200   0357   3491   2778   0004324   0496   14848     STD   1300   0355   3491   2778   0004324   0496   14848     STD   1300   0355   3491   2778   0004362   0540   14864     135   085   71321   0354   34910   2778   0004453   0628   14897     STD   1500   0353   3492   2779   0004453   0628   14897     STD   1750   0352   3493   2780   0004565   0740   14939     135   085   71853   0351   34929   2780   0004594   0855   14979     169   085   72010   0345   3494   2781   0004580   1084   15052     169   085   72525   0314   34929   2784   0004580   1084   15052     169   085   72525   0314   34929   2784   0004580   1084   15052     169   085   72525   0314   34929   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   085   72525   0314   34929   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15052     1500   0316   3493   2784   0004580   1084   15056     1500   0316   0345   0346   0346   0346   0346   0346     1500   0316   0345   0346   0346   0346   0346   0346     1500   0316   0345   0346   0346   0346   0346   0346     1500   0345   0346   0346   0346   0346     1500   0345   0346   0346   0346   0346   0346     1500   0345   0346   0346   0346   0346     1500   0345   0346   0346   0346     1500   0345   0346   0346   0346     1500   0345   0346										000420	19 0	243										
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		169								000470		- 0-4										
						0274	3493	2787		000426	9 1	306										
169 085 73024 0271 34934 2788 15124		169																				
169 OBS T3456 O218 34911 2791 15176		169																				
169 OBS 3545 0188 34907 2793 15179		169	OB	5 35	45	0188	34907	2793	3				15	179								

CE D,	SHIP	LATITUE	DE	LONGITUDE		RSDEN U ARÉ	STATION THE	ME YEAR	ORIGINATOS CRUISE STATI	ON	DEPTH DEPTH	COSCATITION	cons	CODES		STA	TION MBER
o.	CODE		1/10	11/10	10°	1°	MO DAY HE	2,1/10	NO. NUM	BER	SIMPL"		SEA	TYPE A M	T:		
75	Вх	5626	N	05057 W	180	6 60	03 07 1	31 1967	823 006	13	1475 14	27 4 3	X8	00	1	0	006
1 /	2	7020			1	WA1		IND BAR	O. AIR TEMP.	ZIV 2	NO. SPE	CIAL					
						COLOR	TRANS. DIR.	SPEED MET OR (mb	ER DRY W	FT CODE	DEPTHS DBSERV	/A TIONS					
							27	525 96	3 -027 -0	47 6	14						
	MESSENG TIME HR 1/11	07 NO.	CARD		m1	T ℃	s °4.	SIGMA-T	SPECIFIC VOLUME ANOMALY-X107	₹ △ 0 0YN, M. x 10 <sup>3</sup>	VELOCITY	O2 ml/l PO4-P	101AL-1		NO3-N yg - al/l	St O4-St pg - ot/1	рН
						00/3	24.03	2773	0003785	0000	14642		ļ	1	1	1	
			↓ ST			0342	3482	2773	0003103	0000	14642						
	13	1	085			0342	34824 3482	2772	0003615	0004	14644						
			ST			0344	3483	2772	0003837	0008	14647						
			ST				34825	2772	000303.		14647						
	13	3 1	085			0347	3483	2772	0003854	0011	14649						
			51	_	-	0348	34825	2772			14651						
	13	31	085			0348	3483	2772	0003867	0019							
			51 51	_		0347	3483	2772	0003868	0029	14658						
						0347	34829	2773			14658						
	13	31	085	•		0348	3483	2772	0003886	0039							
			\$1			0349	3483	2772	0003926	0046							
			51			0349	34828	2772	0002121		14666						
	1.	31	085			0348	3483	2772	0003939	0058	14669						
		2.	51			0347	34828		• • • • • • • • • • • • • • • • • • • •		14672						
	1.	31	085			0346	3483	2772	0003971	0078	14677						
			51			0348	34829		•••		14680						
	1.	31	QB.			0350	3483	2772	0004048	0098	14688						
		٠,				0350	34826		000.0.0		14687						
	1	31	QB.	-		0350	3483	2772	0004071	0118							
		0.1		TD 030		0350	34832		500.013		14701						
	1	31	08			0351	3483	2772	0004155	0159							
						0352	34832		000.200		14716						
	1	31	QB:			0351	3483	2772	0004229	0201							
				TD 050			34833		000.227		14730						
	1	31	QB			0351		2774	0004219	0244							
				TD 060		0368			0004213	0-1	14772						
	1	31	08			0376			0004236	0286							
				TD 070		0375		2775	0004236	0328							
				10 080		0369		2776	0004220	0326	14797						
	1	31	OR			0364			0004198	0370							
				TD 090		0363		2777	0004224	041							
				10 100		0358		2777	0004272	045							
				TO 110		0355		2777	0004272		-						
				TD 120		0353		2778									
				TD 130		0352		2778	0004398	024	14873						
	1	.31	QB	S T13	58	0352	34904	÷ 2778			14012						

REFER	ENCE				-	# MAR		STATIC	N TIM			1	ORIGIN	ATOR'S	s	DEPTH	MAX.		WAY		WEA-	CLOUD			ODC	
CTRY	10.	SHIP	LATITUI	DE L	ONGITUDE E	SOU			M TI		YEAR	CRUISE		STATIO		BOTTOM	. Of		ERVAT		THER	CODES			LATION UMBER	
CODE	NO.			1/10	1/10	= 10°	1,	MO DA	AY HR.	.1/10		NO.		NUMBE	E.R		S'MPL		HGT P	R SE	A COOL	TYPE AM	1	"		
31	875	Bx	5632	N 0	5102 W	186		03 1	0 1	39 1	1967					3567	13	25	5 4	١.	X8	6 8			0007	
							WA	TER	WI	סאו	BAR	0-	AIR TE	MP. C	VIS.	NO.	SPE	CIAL								
							COLOR	TRANS.	DIR.	SPEED	tmb:		DRY IULB	BUL	coo	OBS.		ZHOITAN								
							CODE	$\longrightarrow$	22	FORCE	+-	_			_	12	-									
	_							<u> </u>	23	\$26	94	2 -0	167	<u> </u>	8 4	<del></del>	L.,		,							
	٨	AESSENGR	CAST	CARD	DEPTH (m)	, , ,	*c	5 .	/	SIGN	A-T	SPECIFI	c volu	UME	₹ A D	so	סאט	O2 m1/1		4-P	TOTA L-P	NO2-N	но₃−н	\$104-\$1	pН	S
	١,	TIME 0	T NO.	TYPE	007111 0111	'   '				3.0		ANON	ALY~X	10/	x 10 <sup>3</sup>	. AET	OCITY	•••	hā.	01/1	h8 -, a1\	pg = a1/1	μg - αl/l	yg - at/l	,	c
	۲		1																							П
	1		' '	STE	0000	۰ ' ٥	344	'		4		1		,		1	'			,			'			
		139	9	OBS	0000		344																			
				STE	0010	0	351																			
				STE	0020	0	358																			
		139	9	085	0022		359																			
				STO			354																			
		139	9	OBS	0046		1346																			
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		139	9	085 510	0091 0100		)346 )347																			
				STO			348																			
				STE			349																			
		139	9	085	0185		351																			
			_	ST			355																			
				STE			364																			
		139	9	085	0278		367																			
				ST			367																			
		139	9	085	T0370		367																			
			_	STO			368																			
		139	9	085 STI	0462 0500		)369 )366																			
		139	0	085	T0548		363																			
		10	,	ST			364																			
				STI			365																			
		13	9	085	0734		365																			
				ST			364																			
				ST	0900		363																			
		139	9	08\$	T0926		363																			
				STI			362																			
				STI			360																			
				STI			357																			
			_	ST			354																			
		13	9	085	T1343	) (	352																			

REFER	ENCE	IP.		NGITUDE	MARSDE	EN	STATION TI			DRIGINA	TOR'S	DEPTH	MAX. DEPTH		WAVE	WEA-	CLOUD			NDDC	
CTRY	ID. CO			NGITUDE S			(GMT)	YEAR	CRUISE ND.		A TION JAMBER	BOITON	. OF	1	ERVATIONS	THER	CODES	1	S.	UMBER	
			1/10		1		AD DAY H			1		-	15 MPL		HGT PER SE	A	TYPE AM	ī.			
31	875 B	X   562	65N   0	50268W	186			141 196				3613	15	31	4 2	X4	66	1		0008	
					-	WATE DLOR 1		SPEED RAI	(U	DRY TEM	VIS	NO. OBS.	SPE	CIAL							
					c	ODE	Im) DIR	FORCE (m)			BULB COD	DEPTHS	OHSERV	ATIONS							
							30	520 0	78 -0	39 -	050 6	14									
	MESS	ENGR CAST									. ₹ △ □	, ,			T						T.
	"	" S NO.	CARD	DEPTH (m)	1 10	c	s °4.	SIGMA-T	ANOM	C VOLUM		A	OCITY	D <sub>2</sub> ml/l	PO 4-P ug = 01/1	TOTAL-P yg - et/1	NO2-N yg - al/l	ND3~N pg - at/I	SI O4=Si yg = al/l	pН	ć
	HR	1/10	+	-	-			-	-		1 - 10	+-	_			_	-				
	ı	- 1	STD	0000	034	4 1	3483	2773	1	3723	0000	1 14	641								
		141	OBS	0000	034		34831	2773	000	,,,,,	0000		641								
		•	STD	0010	034		3483	2773	000	3754	0004		643								
			STD	0020	034	41	3482	2773	000	3793	0001	B 14	645								
		141	OBS	0026	034		34822	2773					646								
			STD STD	0030 0050	034		3482 3482	2773 2773		3817			646								
		141	OBS	0053	034		34823	2773	000	3834	0019		650								
			STD	0075	034		34023	2113				17	000								
			STD	0100	034																
		141	OBS	0106	034	45															
			STD	0125	034																
			STD	0150	034																
		141	OBS	0159	034																
		141	STD OBS	0200 0212	034																
			STD	0250	034																
		141	OBS	0265	034																
			STD	0300	034	43															
		141	OBS	0316	034																
		1.4.1	STD	0400	034																
		141	08S STD	T0423 0500	034	-															
		141	085	0511	034																
		-	STD	0600	034																
		141	085	T0607	034	46															
			STD	0700	034	_															
			STD	0800	034																
		141	OBS STD	0806 0900	034																
		141	085	10995	036																
			STD	1000	036																
			STD	1100	036																
			STD	1200	035	59															
			STD	1300	039																
		1.6.3	STD	1400	035																
		141	OBS	T1499	035	2															

REFERENCE			≝ MAR	SDEN	STATION 1	IME			RIGIN.	ATOR'S		OEPTH	MAX. OEPTH	000	WAVE ERVATIONS	WEA-	CLOUG		l N	200	
CTRY ID. CODE LATITUE	1	IGITU OE	NOS SOU		IGMT)		YEAR	CRUISE NO.	S	TATION	- 1	BOTTOM	1 00	DIR.	HGT PER SE	CODE	TYPE AMI			ATION JM8ER	
CODE NO.	1/10	1/10	= 10°	1'	MO DAY			_			-	25/3						-			
31 875 BX   5631	N 05	100 W	186	_	03 14		1967					3567	15	24	2   2	X2	7 B	I		0009	
				WA		WIN D SPEED	BARG	D-	AIR TEA		VIS.	NO. ORS.	SPEC								
				COLOR	TRANS. DIR.	FORCE	1111111	EX (	UL9	WET	CODI	CEPTHS	OBSERV	ATION S							
					22			1 -0	61	-061	6	14									
				1		1022	1 0				_		1								
MESSENGE CAST	CARD	DEPTH (	ml T	*C	s °/	SIG	MA-T	SPECIFIC	LY-YIA	ME O	AN. W	SOI	OCITY	0 2 m1/1	PO4-P pg = 01/1	101AL-P pg - 01/1	NO2~N yg - al/l	NO3-N pg - at/1	SI O4-Si pg - at/l	pH	ć
HR 1/10 T											X 10 <sup>3</sup>	-			70			pg - 001	7, 1007		1
												1	1								11
· ·	STD	0000		343																	
122	OBS	0000		343																	
	STD	0010		342																	
1.22	ST0 OBS	0020		341																	
122	STD	0030	-	341																	
	STD	0050		341																	
122	OBS	005		341																	
	STD	007		341																	
	STD	0100		340																	
122	OBS	010		340																	
	STD	012		343																	
100	STO	0150		345																	
122 122	OBS OBS	0150 T0199		344																	
122	STD	020		344																	
122	OBS	024		344																	
	STD	025		344																	
122	OBS	0294		345																	
	STD	030		345																	
122	OBS	T038		344																	
	STO	040		344																	
122	OBS	048		0346 0346																	
122	STD QBS	050 05B		3346																	
122	STD	060	_	346																	
	STD	070		0347																	
122	QBS	077		0347																	
	STD	080	0 (	0349																	
	STD	090	0 (	0354																	
122	OBS	1096		0357																	
	STD	100		0357																	
	STD	110		0356																	
	STD	120		0355																	
	STO	130		0354																	
122	STO	140		0354																	
122	OBS	T146	0	0353																	

Table V. Observed and interpolated oceanographic data for station taken by USCGC ESCANABA at Ocean Station BRAVO, 6-24 April 1967, prepared from NODC listing No. 31-887 EN.

REFER		SHIP	LATITUO	ne T	LONGITUDE		SDEN	STATION THE		YEAR		STATION		OEPTH TO	MAX. DEPTH		WAVE	is	WEA- THER	CLOUD		2	NODC
CTRY	10. NO.	CODE		1/10	1/10	10.		MO OAY HE				NUMBER	1	BOTTOM	OF S'MPL"	DIR	HGT PER	SÉA	CODE	TYPE AM	Ť	N	NABER
31	887	EN	5653	N	05028 W	186				967	824 00				16	16	23		X7	5 7			0001
							WAI		SPEED	BARO- MÉTER		MP. °C	VIS.	NO. OBS.	SPE	CIAL							
							COLOR	TRANS OIR	OR FORCE	(mbs)		BULB	CODE	DEPTHS	OBSERV	ATIONS							
								35	S22	098	017	006	5	14									
		MESSENG		CAR		, ,	℃	s */	SIGM	A-T	SPECIFIC VOLU	JME Z	Δ O.		סאט	O2 ml/l	PO4-P		TA L-P	NO2-N	NO3-N	5104-51	рН
		HR 1/10		TYPE	30						ANDMALY-X	10'	103	VELO	OCITY		µg = 01/	u ا′	g = o1/!	νg - οι/Ι	μg - σt/l	yg - 01/1	-
			1 1											1,,					1				
		12	,	ST			1365 1365	3485 34853	277		000378	3 0	000		652								
		13	1	085 S1			1365	3486	277		73د000	35 0	004		653								
				51			1364	3486	277		000374	_	007		655								
		13	1	083			364	34863	277		500514		- 0 1		656								
			-	S1			364	3486	277		000374	25 0	011		657								
				ST	0 0050		364	3486	277	74	000373	35 0	019	14	660								
		13	1	OBS	0051		364	34864	277						660								
				S1			364	3486	277		000375		028		664								
				S1			364	3487	277		000377	72 0	037		668								
		13	1	083			364	34865	277		000379	24 0	047		668								
				S1 S1			)365 )367	3487 3487	277		00038		056		678								
		13	1	083			367	34869	27		00000		0 )0		678								
		1.0	. 1	\$1			365	3487	27		000383	34 0	076		685								
		13	1	083			365	34870	27						685								
			-	\$1			366	3487	27	74	000388	31 0	U95	14	694								
		13	1	083			366	34871	271						694								
				S1			366	3487	27		000393	33 0	114		702								
		13	1	OBS			1366	34868	27				16.		702								
				S.			365	3487	27		00040	11 0	154		718								
		13	2.7	083			0365 0365	34879 3487	27		000409	۵۵ ۸	195		735								
		13	k 1	0B:			365	34870	27		00040	,, 0	-72		735								
		1.5		S			362	3487	27		00041	32 0	236		750								
		13	31	OB:			0362	34873	27						750								
				S	_		359	3487	27		00042	04 0	277		765								
				S	TD 0800		355	3487	27		00042	50 0	320		780								
		13	31	OB:			355	34866	27						782								
					TD 0900		0356	3488	27		000430		363		798								
					70 1000		0358	3489	27		00043	24 0	406		615								
		13	3.1	OB:	S T1022 TD 1100		0358	34888 3489	27		00043	81 0	449		819								
					70 1200		3358	3489	27		00044		493		849								
				S			358	3490	27		00045		538		866								
				S.			356	3490	27		00045		583		882								
					TD 1500	)	0354	3490	27	78	00045	75 0	629		898								
		13	31	08	S T1594	2 1	352	34903	27	78				14	912								

																											L
O. O.	COOE	LATITU	DE L	ONGITUDE "1/10	MAR:	DEN ARE	- 1	GMT	TME - IR.1/10	YEAR	CRUISI		TATI	ЮN	7	DEPTH TO DTTOM	OEPTH OF S'MPL	01	WA V BSERVA	TONS	WEA THEF COO	co	DES		5	NOOC TATION IUMBER	
87	EN	5623		5102 W	186		04 (	7		1967		OO.		°c	Ţ	NO.	04	33		$\neg$	Х9					0002	
						COLOR	TRANS.	DIR	SPEED OR FORCE	BAR MET (mb	ER	DRY BULB		ET CO		OBS. EPTHS		VATIONS									
		,					ļ	05	505	01	7 0	33	0	22 7		09			<u> </u>								
	MESSENGE TIME HR 1/10	or NO.	CARD TYPE	OEPTH (m)	т	°C	5	٠/٠٠	SIG	T-AN		C VOLU		¥ ∆ 0YN. x 11	M.	SOF	OCITY	O 2 ml/		04-P	TOTAL-			NO3~N yg - al/l	SI O4-Si νg - σt/I		s c c
			STO			341	34		27		000	377	6	000	0		641										
	13	4	OBS	0000		341		824			00/	276	,	007			641										
			STO			340	34		27 27			)376 )375		000			643 644										
	13	4	OBS	0025		339		B28	27				_	•			645										
			STD			339	34			73	000	375	3	001	1		645										
			STD			338	34		27		000	376	0	001	9		648										
	13	4	085	0050		338	-	828						- 0 -			648										
			STD			338	34		27	73		)377 )380		002			652 656										
	13	4	OBS	0100		337		827	27		000	,,,,,	0	003			656										
		•	STD			340	34			73	000	382	6	004	7		662										
			STD	0150	0	342	34	83	27	73	000	385	1	005	7	14	667										
	13	4	OBS	0150		342	34	832	27	73						14	667										
			STO			345																					
	13	4	08S STD	T0202 0250		345																					
	13	4	OBS	0250		1347																					
	10	•	STE			343																					
	13	4	OBS	0301	0	343																					
	13	4	OBS	T0399	0	349																					ΩO
																											- × u

No.   No.	NDDC			CLDUD		WAVE					NATOR'S	DRIGIN			ME	IDN TI	STATIC	DEH	MARS	E		SHIP LATITUDE LONGITUDE					
31 887 EN 56140N 05059UW 186 60 04 08 124 1967 824 003 16 34 2 3 X1 7 6	STATION				CDDE			DF	10	- l				YEAR						DAN	NGITUDE		LATITU		D. Cons		CODE
WATER   WIND   AADD   AADD   AADD   COLOR   TOWN   OR   OR   OR   OR   OR   OR   OR   O		_										+								1						+	
CODE   TANK   DR.   MIST   MARTER   BULK   BULK   BULK   DEF   TO	00031			7161	X1	2   3	34	16		,			7 824	196					186		0590W	ON   05	5614	N I	87 EN	1	31
No.   No.							AL	SPEC		VIS.	7				SPEEO				-								
MISSING   CAST   CAST							IIDN 3	B) EX VA	EPTHS	CODE				1	OR	DIR.											
STD 0000 0338  124 0BS 0000 0338									13	7	-028	017	66 -0	1	511	24											
STD 0000 0338 STD 0010 0338 STD 0020 0337 124 085 0025 0337 STD 0050 0338 STD 0075 0338 STD 0100 0338 STD 0125 0339 STD 0150 0340 124 085 0163 0341 STD 0200 0340 124 085 T0218 0339 34820 2773 STD 0200 0340 124 085 T0218 0339 3483 2773 0003959 STD 0300 0348 3484 2773 0003976 14684 STD 0300 0348 3484 2773 0003976 14694 124 085 0325 0350 34843 2773 STD 0400 0351 3485 2774 0004013 14711 124 085 T0426 0351 34851 2774 STD 0500 0351 3485 2774 14716 STD 0500 0351 34855 2774 14716 STD 0600 0351 34855 2774 14745	6	SI D4-SI	WD 11	ND- N					50111	Δρ	≨	CIC NO.	Tarcut.								Τ			ENGE	MECCEN		
STD 0000 0338  124 0BS 0000 0338  STD 0010 0338  STD 0020 0337  124 0BS 0025 0337  STD 0050 0338  124 0BS 0053 0338  124 0BS 0053 0338  STD 0100 0338  124 0BS 0053 0338  STD 0100 0338  124 0BS 0109 0338  STD 0105 0340  124 0BS 0109 0338  STD 0150 0340  124 0BS 0163 0341  STD 0200 0340  124 0BS T0218 0339 34820 2773  STD 050 0343 3483 2773 0003959 14683  STD 0300 0348 3484 2773 0003959  STD 0300 0348 3484 2773 14699  STD 0400 0351 3485 2774 0004013 14711  124 0BS 10426 0351 34851 2774  STD 0500 0351 3485 2774 14716  STD 0500 0351 3485 2774 14716  STD 0500 0351 34855 2774 14745		yg = 01/1					) 2 ml/l			N. M.	197	MALY-X	ANO	T-AM	SIGA	٠/	2 .	°C	1	(m)	DEPTH 6			ME of	TIMI		
124				-				-	-				+	_	+	_	_		+	_				1/10	HR 1/		
124	'		- 1	- 1	,	1 1		- 1	l		- 1				1		I	220	1		0000	C.T.D.			-		
STD 0010 0338 STD 0020 0337 124 0BS 0025 0337 STO 0030 0337 STO 0050 0338 124 0BS 0053 0338 STD 0075 0338 STD 0100 0338 STD 0100 0338 124 0BS 0109 0338 STD 0100 0338 124 0BS 0109 0338 STD 0150 0340 124 0BS 0163 0341 STD 0200 0340 124 0BS 1063 0341 STD 0200 0340 124 0BS T0218 0339 34820 2773 14676 STD 0250 0343 3483 2773 0003959 14683 STD 0300 0348 3484 2773 0003959 14689 124 0BS 0325 0350 34843 2773 14699 124 0BS 0325 0350 34843 2773 14699 STD 0400 0351 3485 2774 0004013 14711 124 0BS T0426 0351 3485 2774 0004013 14711 124 0BS T0426 0351 3485 2774 14716 STD 0500 0351 3485 2774 14716 STD 0500 0351 34856 2774 14728 124 0BS 0500 0351 34856 2774 14745 STD 0600 0351 3486 2774 000417 14745 STD 0600 0351 3486 2774 0004222 14762																								124			
STD																								124	,		
124																											
STO   0030   0337   STO   0050   0338   STO   0053   0338   STO   0075   0338   STO   0075   0338   STO   0100   0338   STO   0109   0338   STO   0125   0339   STO   0150   0340   STO   0150   0340   STO   0150   0340   STO   0250   0343   3483   2773   0003959   14683   STO   0250   0343   3483   2773   0003959   14684   STO   0250   0343   3483   2773   0003976   14694   124   085   0355   0350   34843   2773   0003976   14699   STO   0400   0351   3485   2774   0004013   14711   124   085   70426   0351   3485   2774   0004013   14711   124   085   70426   0351   34856   2774   0004055   14728   124   085   0500   0351   34856   2774   0004055   14728   124   085   0500   0351   34856   2774   0004055   14728   124   085   0500   0351   34856   2774   0004055   14728   125   0500   0351   34856   2774   0004055   14746   STO   0500   0351   34866   2774   000417   14745   STO   0500   0351   3486   2774   000417   14745   STO   0700   0352   3486   2774   0004222   14762   14762   14762   14762   14765   14766   STO   0700   0352   3486   2774   0004222   14762   14762   14765   14765   STO   0700   0352   3486   2774   0004222   14762   14762   14765   14765   STO   0700   0352   3486   2774   0004222   14762   14762   14765   STO   0700   0352   3486   2774   0004222   14762   14762   14765   14765   STO   0700   0352   3486   2774   0004222   14762   14762   14765   1																								124	1		
124																		337	0 :	0	0030	STO					
STD 0075 0338 STD 0100 0338  124 085 0109 0338 STD 0125 0339 STD 0150 0340  124 085 0163 0341 STD 0200 0340  124 085 70218 0339 34830 2773 0003959 14683 STD 0250 0343 3483 2773 0003976 14694  124 085 0325 0350 3484 2773 0003976 14699  124 085 0325 0350 34843 2773 14699 STD 0400 0351 3485 2774 0004013 14711  124 085 70426 0351 3485 2774 0004013 14711  124 085 70426 0351 3485 2774 14716 STD 0500 0351 34856 2774 14728  124 085 0500 0351 34856 2774 14728  124 085 70575 0351 34856 2774 14741 STD 0600 0351 3486 2774 000417 14745 STD 0600 0351 3486 2774 0004222 14762																											
STD   0100   0338																								124	1		
124																											
STD 0125 0339 STD 0150 0340  124 0BS 0163 0341 STD 0200 0340  124 0BS T0218 0339 34820 2773 14676 STD 0250 0343 3483 2773 0003959 14683 STD 0300 0348 3483 2773 0003976 14694  124 0BS 0325 0350 34843 2773 14699 STD 0400 0351 3485 2774 0004013 14711  124 0BS T0426 0351 34851 2774 14716 STD 0500 0351 3486 2774 0004055 14728  124 0BS 0500 0351 34856 2774 14728  124 0BS 0500 0351 34856 2774 14741 STD 0600 0351 34856 2774 14745 STD 0600 0351 3486 2774 000417 14745 STD 0600 0351 3486 2774 0004222 14762																								124	,		
STD   0150   0340   0341   0341   0340   0																								124	1		
124																											
STD   0200   0340   0340   0350   0340   0340   0348   0339   34820   2773   04676   0350   0343   3483   2773   0003959   03468   0325   0350   0348   03484   2773   0003976   0350   0348   03484   0350																								124	1		
124 OBS TO 218 0339 34820 2773 14676 STD 0250 0343 3483 2773 0003959 14683 STD 0300 0348 3484 2773 0003976 14694 124 OBS 0325 0350 34843 2773 14699 STO 0400 0351 3485 2774 0004013 14711 124 OBS TO 0400 0351 34851 2774 14716 STD 0500 0351 34856 2774 0004055 14728 124 OBS 0500 0351 34856 2774 14728 124 OBS 0500 0351 34856 2774 14741 STD 0600 0351 34856 2774 14741 STD 0600 0351 3486 2774 0004147 14745 STD 0600 0351 3486 2774 0004222 14762																									-		
STD   0300   0348   3484   2773   0003976   14694   124   0B5   0325   0350   34843   2773   14699   14699   14711   124   0B5   70426   0351   3485   2774   0004013   14711   124   0B5   70426   0351   3485   2774   14716   14716   14716   14716   14716   14728   124   0B5   0500   0351   3485   2774   14728   124   0B5   70575   0351   34855   2774   14741   14741   14741   1570   0400   0351   3486   2774   0004147   14745   14745   14741   14745   1570   0700   0352   3486   2774   0004222   14762								76	146					73	27	820	348	339	0:	8	T0218			124	1		
124 0BS 0325 0350 34843 2773 14699 STO 0400 0351 3485 2774 0004013 14711 124 0BS T0426 0351 34851 2774 14716 STO 0500 0351 34856 2774 0004055 14728 124 0BS 0500 0351 34856 2774 14728 124 0BS 0500 0351 34856 2774 14741 STO 0400 0351 3485 2774 14741 STO 0400 0351 3486 2774 0004147 14745 STO 0700 0352 3486 2774 0004222 14762								83	146		9	0395	000	73	27	6 5	348	343	0:	0	0250	STD					
STO 0400 0351 3485 2774 0004013 14711 124 0BS T0426 0351 3485 2774 14716 STO 0500 0351 3485 2774 14716  124 0BS 0500 0351 3485 2774 14728 124 0BS 0500 0351 34856 2774 14728 124 0BS 10575 0351 34855 2774 14741 STD 0600 0351 3486 2774 0004147 14745 STD 0700 0352 3486 2774 0004222 14762											76	0397	001														
124																			-			_		124	1		
STD 0500 0351 3486 2774 0004055 14728 124 0BS 0500 0351 34856 2774 14728 124 0BS 70575 0351 34856 2774 14741 STD 0600 0351 3486 2774 0004147 14745 STD 0700 0352 3486 2774 0004222 14762								-			13	0401	001						-								
124 OBS 0500 0351 34856 2774 14728 124 OBS 10575 0351 34855 2774 14741 SID 0600 0351 3486 2774 0004147 14745 SID 0700 0352 3486 2774 0004222 14762												0405	00											124	1		
124 OBS 70575 0351 34855 2774 14741 STD 0600 0351 3486 2774 0004147 14745 STD 0700 0352 3486 2774 0004222 14762											, ,	0402	001											124	1		
STD 0600 0351 3486 2774 0004147 14745 STD 0700 0352 3486 2774 0004222 14762																											
STD 0700 0352 3486 2774 0004222 14762											47	0414	00				-					-					
124 OBS 0767 0352 34858 2774 14773											22	0422	00			86	348	352	0			STD					
																								124	1		
STD 0800 0354 3486 2774 0004309 14779																											
STD 0900 0360 3488 2775 0004312 14799											12	0431	00														
124 OB5 0983 0363 34892 2776 14814												04.25	00											124	1		
STD 1000 0363 3489 2776 0004339 14817 STD 1100 0361 3489 2776 0004385 14833																											
STD 1100 0361 3489 2776 0004385 14833 STD 1200 0359 3490 2777 0004430 14849									-									_			_						
STO 1300 0357 3490 2777 0004482 14865									4 4 6																		
								65	148		3.2	0445															
STD 1500 0353 3490 2778 0004566 14897																	349										
124 OBS T1570 0352 34902 2778 14908								81	148		25	0454	00	777	27	90		355	0	00	140	STO					

1   1   1   2   2   3   3   3   5   1   2   3   3   3   3   3   3   3   3   3			SHIP			±5	MARSOEN	STATION TI		ORIGINAT	OR*S	UEFIR   Ara		WAVE	WEA	- CLOUD	T-		HODG
S87 EN   5639 N   050383W   186   50   04   10   125   1967   824   004   144   21   5   4   X1   0   0004	COOE	NO.		ATITUI								2077011 0	F O		THER	COOES	1		HOITAT
Note	3.1	9.07	EN	6430						<del>                                     </del>	MBEK	3 m			A 000	TYPE AM	T	-+-	AUWREK
STD   OOO	1 21	041	_ E16	2039	N   U	30383W			UNO I	410.75440	~	1	4 21	15  4	X1	101	1		0004
							COLOR	1	SPEED MET	0-	VIS.	085.	PECIAL						
STD   0000   0350   3486   2775   0003567   0004   14664   1467   1467   1468   14664   1466							COOE	(m)	FORCE (mb	s) RUL9 F	ULE	DEPTHS							
STD   0000   0350   3486   2775   0003567   0004   14646   1		,						19	528 08	1 044 (	7 44	14							
STO   0000   0350   3486   2775   0003567   0007   14646   14646   14647   125   085   0000   0350   3486   2775   0003567   0007   14649   14647   125   085   0020   0350   3486   2775   000357   0007   14649   14647   125   085   0024   0350   3486   2775   000357   0007   14649   14650   125   085   0044   0350   3486   2775   000357   0007   14649   14650   125   085   0047   0350   3486   2775   000357   0007   14649   14650   125   085   0047   0350   3486   2775   0003639   0027   14653   14653   125   085   0047   0350   3486   2775   0003659   0027   14658   14653   125   085   0049   0351   3486   2775   0003659   0027   14658   14661   14662   126   1			MESSENGR			OFPTH (m)	1.10	5 %.	SIGMA_T	SPECIFIC VOLUME	₹ △ 0	SOUND		, PO4-P	TOTAL-P	NO2-N	NO-N	\$105	
125				Ĭ NO.	TYPE			' '''	310mA=1	ANOMALT-1107		. VELOCITY	02 ml/						gH G
125		- 1											1						
STD   0010   0350   3486   2775   0003576   0007   14647					STO	0000	0350	3486	2775	0003558	0000	14646	,	' '		'		1	1 1
STO   0020   0350   3486   2775   0003576   0007   14459			129	5								14646							
125																			
STD   0030			126							0003576	0007								
125			14.	,						0003592	0011								
STD   0050   0350   3486   2775   0003633   0018   14658     125   085   0094   0351   3486   2775   0003659   0027   14658     STD   0100   0351   3486   2775   0003684   0036   14661     STD   0105   0351   3486   2775   0003706   0045   14667     STD   0125   0351   3486   2775   0003706   0045   14667     STD   0150   0351   3486   2775   0003706   0045   14667     STD   0150   0351   3486   2775   0003706   0045   14671     125   085   0140   0351   3486   2775   0003738   0073   14679     125   085   0226   0351   3486   2775   0003738   0073   14679     125   085   0226   0351   3486   2775   0003738   0073   14687     125   085   0226   0351   3486   2775   0003738   0092   14687     125   085   0322   0351   3486   2775   0003788   0092   14687     STD   0300   0349   3488   2777   0003717   0148   14710     125   085   0333   34888   2777   0003717   0148   14710     125   085   0404   0345   34882   2777   0003717   0148   14710     125   085   0406   0345   3488   2777   0003717   0148   14710     125   085   0600   0344   3488   2777   0003797   0185   14726     STD   0600   0344   3488   2777   0003868   0224   14742     125   085   0680   0343   3488   2777   0003868   0224   14742     125   085   0680   0343   3488   2777   0003868   0224   14742     125   085   0680   0343   3488   2777   0003868   0224   14742     125   085   0680   0344   3488   2777   0003950   0263   14776     STD   0700   0343   3488   2777   0004029   0303   14776     STD   0700   0346   3488   2777   000410   0343   14793     STD   1000   0346   3489   2777   000410   0343   14810     STD   1100   0346   3489   2777   0004171   0343   14810     STD   1100   0346   3489   2777   0004171   0343   14810     STD   1100   0351   3490   2778   0004295   0470   14846     STD   1400   0355   3491   2778   0004295   0470   14886     STD   1400   0355   3491   2778   0004295   0470   14886     STD   1400   0355   3491   2778   0004295   0470   14886     STD   1400   0355   3491   2778   0004245   0557   14881			129	5						0003372	0011								
STD   0075   0351   3486   2775   0003659   0027   14658   14661   STD   0100   0351   3486   2775   0003706   0045   14662   14667   14667   125   085   0140   0351   3486   2775   0003706   0045   14667   14667   125   085   0140   0351   3486   2775   14669   14677   125   085   0187   0351   3486   2775   0003698   0055   14671   14677   125   085   0262   0350   34861   2775   14683   14679   14683   146					STD	0050	0350	3486		0003633	001a								
STD   0100   0351   3486   2775   0003684   0036   14662   14667   125   085   0140   0351   3486   2775   0003708   0045   14669   14667   14677   14677   14677   14677   14677   14677   14677   14677   14679   14683   14679   14683   14679   14683   14689					STO	0075	0351	3486	2775	0003659									
STO   0125   0351   3486   2775   0003706   0045   14667			125	•															
125																			
STO   0150   0351   3486   2775   0003698   0055   14671   125   085   T0187   0351   3486   2775   0003738   0073   14679   14683			126							0003706	0045								
125			125	,						0003400	0056								
STD 0200 0351 3486 2775 0003738 0073 14679  125 0BS 0226 0350 34861 2775 14683  STD 0250 0351 34864 2775 0003788 0092 14687  125 0BS 0262 0351 34864 2775 14689  STD 0300 0349 3488 2776 0003690 0111 14695  125 0BS 0333 34888 2777 0003717 0148 14710  125 0BS 0404 0345 34882 2777 14710  125 0BS 0404 0345 34882 2777 14710  125 0BS 0404 0345 34882 2777 14710  125 0BS 0406 0345 3488 2777 0003797 0185 14726  STD 0500 0345 3488 2777 0003797 0185 14726  STD 0500 0345 3488 2777 0003868 0224 14742  125 0BS 0680 0343 3488 2777 0003868 0224 14742  125 0BS 0680 0343 3488 2777 0003950 0263 14759  STD 0700 0343 3488 2777 0004029 0303 14776  125 0BS 0887 0344 3488 2777 0004029 0303 14776  STD 0900 0344 3488 2777 0004029 0303 14776  STD 0900 0344 3488 2777 0004171 0385 14810  STD 1000 0346 3489 2777 0004171 0385 14810  STD 1100 0349 3490 2778 0004233 0427 14828  STD 1200 0351 3490 2778 000423 0427 14828  STD 1300 0353 3491 2778 0004221 0557 14881			125	,						0003098	0000								
125 OBS 0226 0350 34861 2775 0003788 0092 14687 125 OBS 0262 0351 3486 2775 0003788 0092 14687 125 OBS 0262 0351 34864 2775 125 OBS 0333 34888 2776 0003690 0111 14695 125 OBS 0333 34888 2777 0003717 0148 14710 125 OBS 0404 0345 34882 2777 14710 125 OBS 0404 0345 34882 2777 14724 125 OBS 0406 0345 3488 2777 0003797 0185 14726 125 OBS 0500 0345 3488 2777 0003797 0185 14726 125 OBS 0600 0344 3488 2777 0003868 0224 14742 125 OBS 0600 0344 3488 2777 0003868 0224 14742 125 OBS 0680 0343 34881 2777 14755 126 OBS 087 0344 3488 2777 0004029 0303 14776 127 OBS 0887 0344 3488 2777 0004029 0303 14776 128 OBS 0887 0344 3488 2777 0004029 0303 14776 129 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 14790 03493 14793 14790 03493 14793 14790 03493 14793 14793 14790 03493 14793 14793 14790 034										0003738	0073								
STO   0250   0351   3486   2775   0003788   0092   14687   14689   STO   0300   0349   3488   2776   0003690   0111   14695   125   085   0333   34888   2777   0003717   0148   14710   147			125	i	OBS	0226	0350	34861											
STD 0300 0349 3488 2776 0003690 0111 14695  125 0BS 0333 34888 STD 0400 0345 3488 2777 0003717 0148 14710  125 0BS 0404 0345 34882 2777 14710  125 0BS T0486 0345 34882 2777 14724 STD 0500 0345 3488 2777 0003797 0185 14726 STD 0600 0344 3488 2777 0003797 0185 14726 STD 0600 0344 3488 2777 0003868 0224 14742  125 08S 0680 0343 34881 2777 14755 STD 0700 0343 3488 2777 0003950 0263 14776 STD 0800 0344 3488 2777 0004029 0303 14776  125 0BS 0887 0344 3488 2777 0004029 0303 14776  125 0BS 0887 0344 3488 2777 0004110 0343 14793 STD 0900 0344 3488 2777 0004110 0343 14793 STD 1000 0346 3489 2777 0004171 0385 14810 STD 1100 0349 3490 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004297 0557 14881							0351	3486	2775	0003788	0092								
125 OBS 0333 34888 2777 0003717 0148 14710 125 OBS 0404 0345 34882 2777 14710 125 OBS T0486 0345 34882 2777 14724  STD 0500 0345 3488 2777 0003797 0185 14726  STD 0600 0344 3488 2777 0003868 0224 14742 125 OBS 0680 0343 34881 2777 0003868 0224 14742 125 OBS 0680 0343 34881 2777 0003950 0263 14755  STD 0700 0343 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004110 0343 14793 STD 0900 0344 3488 2777 0004171 0385 14810 STD 1000 0346 3489 2777 0004171 0385 14810 STD 1100 0349 3490 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0355 3491 2778 0004421 0557 14881			125	•								14689							
STD			126				0349		2776	0003690	0111	14695							
125			125	'			0345		2777	0003717	0140	14710							
125 OBS T0486 0345 34882 2777 14724 STD 0500 0345 3488 2777 0003797 0185 14726 STD 0600 0344 3488 2777 0003868 0224 14742 125 OBS 0680 0343 34881 2777 14755 STD 0700 0343 3488 2777 0004029 0303 14776 STD 0800 0344 3488 2777 0004029 0303 14776 125 OBS 0887 0344 3488 2777 0004029 0303 14776 STD 0900 0344 3488 2777 0004110 0343 14793 STD 1000 0346 3489 2777 0004171 0385 14810 STD 1000 0346 3489 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004421 0557 14881			125							0003111	0140	_							
STD 0500 0345 3488 2777 0003797 0185 14726 STD 0600 0344 3488 2777 0003868 0224 14742  125 08S 0680 0343 34881 2777 14755 STD 0700 0343 3488 2777 0004029 0303 14776 STD 0800 0344 3488 2777 0004029 0303 14776  125 08S 0887 0344 3488 2777 0004029 0303 14776 STD 0900 0344 3488 2777 000410 0343 14793 STD 1000 0346 3489 2777 000417 0385 14810 STD 1100 0349 3490 2778 000423 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004421 0557 14881					_														
STD 0600 0344 3488 . 2777 0003868 0224 14742  125 085 0680 0343 34881 2777 14755  STD 0700 0343 3488 2777 0003950 0263 14759  STD 0800 0344 3488 2777 0004029 0303 14776  125 085 0887 0344 3488 2777 14790  STD 0900 0344 3488 2777 0004110 0343 14793  STD 1000 0346 3488 2777 0004171 0385 14810  STD 1100 0349 3490 2778 0004233 0427 14828  STD 1200 0351 3490 2778 0004295 0470 14846  STD 1300 0353 3491 2778 0004421 0557 14881							_			0003797	0185								
125						0600	0344	3488 ,											
STD 0800 0344 3488 2777 0004029 0303 14776  125 0BS 0887 0344 3488 2777 14790  STD 0900 0344 3488 2777 0004110 0343 14793  STD 1000 0346 3489 2777 0004171 0385 14810  STD 1100 0349 3490 2778 0004233 0427 14828  STD 1200 0351 3490 2778 0004295 0470 14846  STD 1300 0353 3491 2778 0004357 0513 14864  STD 1400 0355 3491 2778 0004421 0557 14881			125						2777										
125 OBS 0887 0344 34882 2777 14790 STO 0900 0344 3488 2777 0004110 0343 14793 STD 1000 0346 3489 2777 0004171 0385 14810 STD 1100 0349 3490 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004357 0513 14864 STD 1400 0355 3491 2778 0004421 0557 14881																			
STO 0900 0344 3488 2777 0004110 0343 14793 STD 1000 0346 3489 2777 0004171 0385 14810 STD 1100 0349 3490 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004357 0513 14864 STD 1400 0355 3491 2778 0004421 0557 14881			126							0004029	0303								
STD 1000 0346 3489 2777 0004171 0385 14810 STD 1100 0349 3490 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004357 0513 14864 STD 1400 0355 3491 2778 0004421 0557 14881			125							0006330	0343								
STD 1100 0349 3490 2778 0004233 0427 14828 STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004357 0513 14864 STD 1400 0355 3491 2778 0004421 0557 14881																			
STD 1200 0351 3490 2778 0004295 0470 14846 STD 1300 0353 3491 2778 0004357 0513 14864 STD 1400 0355 3491 2778 0004421 0557 14881																			
STD 1300 0353 3491 2778 0004357 0513 14864 STD 1400 0355 3491 2778 0004421 0557 14881																			
STD 1400 0355 3491 2778 0004421 0557 14881					STD														
125 OBS T1442 0356 34916 2779 14889										0004421									
			125		OBS	T1442	0356	34916	2779			14889							

REFERENCE SHIP		E #	MARSDEN	STATION TIA		ORIGINATO	2°9C	DEPTH MAX.	005	WAVE	WEA-	CLOND			100C	
CTRY ID. CODE LATIT	1/10	NGITUDE SON	SQUARE	(GMT)	YEAR		NON	BOTTOM S'MPL'S		HGT PER SE	THER	TYPE AMI		N SI	UMBER	
							AUG.						<del>                                     </del>			
31 887 EN   563	95N   05	1065W	186 61 WAT		22 1967	A IR TEAAP	°C	15	07	2 2	X4	5 8	I	- 1	0005	
					SPEED MART	U+	VET CODE	NO. SPEC								
			CODE	Im) DIR.	FORCE (mb		ULB	DEPTHS COSERVA								
				07	\$20 96	3 028 0	28 5	14								
MESSENGR CAST	CARO	T				SPECIFIC VOLUME	₹ ∆ b	SOUND		PO <sub>4</sub> =P	TOTAL-P	NO2-N	NO3-N	SI O4-Si		S
TIME OF NO.	TYPE	DEPTH (m)	T *C	5 1/4.	SIG MA-T	ANOMALY-X107	X 10 <sup>3</sup>	VELOCITY	O2 m1/l	yg • at/l	μg - ot/l	pg - 01/1	yg - o1/1	νg - σΙ/Ι	pН	C
NK 1710	+									-			-			
	STD	0000	0347	3486	2775	0003553	0000	14644						1	'	[ ]
122	OBS	0000	0347	34861	2775	000000	0000	14644								
***	STD	0010	0343	3486	2776	0003517	0004									
	STD	0020	0341	3486	2776	0003499	0007	14645								
122	OBS	0026	0340	34863	2776			14646								
	STD	0030	0340	3486	2776	0003525	0011	14646								
122	OBS	0047	0342	34859	2775	> 5		14650								
	STD	0050	0342	3486	2775	0003564	0018									
	STD	0075	0342	3486 3487	2776 2776	0003558	0027	14654								
122	OBS	0100	0341	34865	2776	0003552	0035	14658								
122	STO	0125	0342	3486	2775	0003624	0044									
	STD	0150	0344	3486	2775	0003659	0054									
122	085	0152	0344	34858	2775			14668								
	STD	0200	0341	3486	2776	0003674	0072	14675								
122	OBS	T0202	0341	34860	2776			14675								
122	OBS	0249	0340	34869	2776			14682								
122	STD OBS	0250 0294	0340 0341	3487 34862	2776	0003637	0090									
122	STD	0300	0341	3486	2776 2776	0003734	0109	14690 14691								
122	OBS	0374	0341	34870	2776	0003134	0.09	14704								
	STD	0400	0341	3487	2776	0003761	0146									
122	OBS	0444	0342	34872	2776			14716								
	STD	0500	0343	3487	2776	0003864	0184	14725								
122	OBS	T0520	0343	34869	2776			14729								
	STO	0600	0343	3487	2776	0003953	0423									
122	STO	0700	0344	3487	2776	0004040	0263									
122	OBS STD	0710 0800	0344	34871 3487	2776 2776	0004115	0304	14761								
	STO	0900	0344	3487	2776	0004115	0304									
122	OBS	0919	0344	34871	2776	0007170	0240	14795								
	STD	1000	0345	3488	2777	0004243	0388									
	STD	1100	0346	3489	2777	0004276	0430									
	STD	1200	0348	3489	2777	0004328	0473									
	STO	1300	0350	3490	2778	0004373	0517	14862								
	STD	1400	0353	3491	2778	0004439	0561	14880								
122	OBS	T1473	0355	34913	2778			14894								

REFERENCE SHIP		- E	MARSDEN	STATION TIM		DRIGINATO	R°S	DEPTH MAX.		AVE	WEA-	CLOUD			1000	
CTRY ID. CDDE LATITU		GITUDE ES	SQUARE	(GMT)	YEAR	CRUISE STAT		BOTTOM S'MPL'S		VATIONS	THER	TYPE AM			UMBER	
	1/10	1710		MD DAY HR	1		IDEX	3 MrL 3		GT PER SEA	<del>`</del>		-			
31 887 EN   5639	N   05	0490W	186 60 WAT		78 1967	BZ4 006 AIR TEMP.	~ I	15	04 4	15	X7	9 6	1	- 1	0006	
			COLDR		SPEED MET	D	ET CDDE	ND. SPECI								
			CDDE	L, DIR	FORCE (mb		JLB COOL	DEPTHS DOSERVA	ILONS							
				02	518 14	6 006 -0	11 7	14								
MESSENGR CAST	CARD					SPECIFIC VOLUME	₹ ∆ O DYN. M.	SDUND		PD4-P	TOTAL-P	NO <sub>2</sub> -N	NO3-N	SI 04-Si		5
TIME OF NO.	TYPE	OEPTH (m)	т *С	s °/	SIGMA-T	ANDMALY-X107	DYN. M. x 10 <sup>3</sup>	VELOCITY C	12 ml/1	pg = e1/1	ا/اه - وبر	1/fp - gu	yg - at/l	νg = at/l	pН	C
HK 1710								+								+
	STD	0000	0351	3485	2774	0003643	0000	14646	}						)	1 1
178	OBS	0000	0351	34854	2774	0003043	0000	14646								
	STD	0010	0345	3485	2775	0003596	0004									
	SID	0020	0341	3485	2775	0003567	0007	14645								
178	OBS	0024	0340	34854	2775		002	14645								
	STD	0030	0340	3486	2775	0003559	0011	14646								
178	STD 085	0050	0340 0340	3486 34858	2776 2776	0003553	0018	14650								
110	STD	0075	0339	3486	2776	0003557	0027	14653								
178	085	0099	0338	34860	2776	0003331	0021	14657								
	STO	0100	0338	3486	2776	0003562	0036									
	STD	0125	0341	3486	2776	0003611	0045	14662								
	STD	0150	0344	3465	2775	0003705	0054	14668								
178	085	0150	0344	34854	2775			14668								
170	STD	0200	0344	3486	2775	0003740	0072	-								
178	08S STD	T0202 0250	0344	34855 3486	2775 2775	0003792	0091	14676								
178	085	0250	0345	34855	2775	0003792	0091	14685								
170	STD	0300	0344	3486	2775	0003786	0110									
178	OBS	0300	0344	34860	2775			14692								
178	085	T0394	0343	34859	2775			14708								
	STD	0400	0343	3486	2775	0003862	0148									
178	OBS	0497	0348	34862	2775	0003000	0100	14727								
178	STD	0500 0520	0348	3486 34863	2775 2775	0003980	0188	14727 14731								
110	STD	0600	0349	3486	2775	0004065	0228									
	STD	0700	0348	3486	2775	0004145	0269									
178	OBS	0798	0347	34861	2775			14776								
	STD	0800	0347	3486	2775	0004223	0311	14777								
	STD	0900	0346	3486	2775	0004293	0353									
178	STD	1000	0345	3486 34860	2775 2775	0004369	0397	14809 14809								
118	OBS STD	1100	0347	3487	2776	0004425	0441	14809								
	STD	1200	0350	3487	2776	0004489	0485									
	STD	1300	0352	3488	2776	0004546	0530									
	STD	1400	0355	3489	2776	0004604	0576	14881								
	STD	1500	0357	3489	2777	0004663	0622	14899								
178	OBS	T1505	0357	34894	2777			14900								

REFERENCE			MARSDEN	STATION TIA	AE .	ORIGINATO	2°9C	OEPTH MA	<b>6.</b>	WAVE	WEA-	CLOUD			NODC	
CTRY ID. CODE LATITU	IDE LOF	NGITUOE	SOUARE	1GMT1	YEAR		TION	10 OF	003	ERVATIONS	THER	COOES	}	2	TATION	
CODE NO.	1/10	1/10 Z	10" 1"	MO DAY HE	.1/10	NO. NU	MBER	MOTTOB	'S DIR.	HGT PER SE	CODE	TYPE AM	1		IUMBER	
31 887 EN 5626	N 05	0590W	186 60	04 16 0	06 1967	B24 007		1.	3 33	ا دا د	X7	4 8			0007	
			WAT		NO BAR	AIR TEMP.		NO.	ECIAL						•••	
			COLOR	TRANS OIR	SPEED MET	ER ORY V	VET COD		ZNOTEN							
			COOE	(m)	FORCE Imbi	1) BULB B	OFE	50								
				32	516 16	6 006 0	00 5	14								
MESSENGR CAST	CARD		T to			SPECIFIC VOLUME	₹ △ D	DANOS		PO4-P	TOTAL-P	NO2-N	NO3-N	SI O4-Si		s
TIME OF NO.	TYPE	DEPTH (m)	' `	s ·/	SIGMA-T	ANOMALY-X107	X 10 <sup>3</sup>	VELOCITY	O <sub>2</sub> ml/l	μg = a1/1	μg - at/l	ид - ol/I	µg = al/l	μg - α1/	pН	c
716					-										_	+
1 1	CAD	0000	0345	3486	2775	0003572	0000	14643	i			1		ı	1	11
006	STD 085	0000	0345	34856	2775	0003572	0000	14643								
006	STD	0010	0342	3486	2775	0003555	0004									
	STO	0020	0340	3486	2775	0003539	0007	_								
006	OBS	0022	0339	34856	2775	0003333	000	14644								
000	STD	0030	0339	3486	2775	0003546	0011									
006	OBS	0043	0340	34857	2775	00033.0		14648								
	STD	0050	0340	3486	2775	0003560	0018									
	STD	0075	0340	3486	2775	0003589	0027									
006	QBS	8800	0340	34855	2775			14656								
	STO	0100	0341	3486	2775	0003628	0036	14658								
	STD	0125	0343	3486	2775	0003671	0045	14663								
006	OBS	0131	0344	34850	2775Q											
	STD	0150	0345	3485	2775	0003715	0054	14668								
006	OBS	T0177	0346	34854	2775			14673								
	STO	0200	0346	3486	2775	0003722	0073									
006	OBS	0220	0346	34864	2775			14680								
	STO	0250	0347	3487	2775	0003733	0091									
006	OBS	0263	0347	34866	2776			14688								
	STD	0300	0347	3487	2776	0003741	0+10									
006	OBS	T0346	0347	34873	2776			14702								
004	STD	0400	0348	3487	2776	0003831	0148									
006	OBS	0439 0500	0348 0348	34869 3487	2776 2776	0003927	0187	14717								
004						0003921	010									
006	OBS STD	0529 0600	0347 0344	34869 3486	2776 2775	0004034	0426	14732								
006	OBS	0686	0341	34857	2775	0004034	0-20	14755								
008	STD	0700	0341	3486	2776	0004084	0467									
	STD	0800	0342	3486	2776	0004170	0308									
006	OBS	0884	0342	34869	2776	0004210	0300	14789								
***	510	0900	0342	3487	2776	0004192	0350									
	STD	1000	0344	3487	2776	0004283	0392									
	STD	1100	0346	3487	2776	0004377	0436									
	510	1200	0346	3487	2776	0004469	0480									
	STD	1300	0349	3487	2776	0004556	0529									
006	085	T1342	0350	34874	2776			14869								

REFERENCE	SHIP			- E	MARSDEN	STATION TO		ORIGINAT	OR*S	DEPTH MAX		WAVE	WEA	Crona			NODC	I
CODE NO.	COOE	LATITU	1/10	NGITUOE LANGINGING	SOUARE 10° 1°	(GMT)	YEAB		TION	BOTTOM S'MPL	0.3	ERVATIONS	THER	CODES	4		TATION	
-	<del>  _  </del>	F ( 2 2		- 1710	10 1			1		3 /// 1		HGT PER SE	<del>^</del>	TYPE A.M	1	-		
31 88	7 EN	5633	DN   UZ	101 W	186 61		177   1967	A ID TEALD	. 10	NO.	01	2 3	X1	616	1	- 1	0008	l
					COLO	TRANS OIR	SPEED MET	ER ORY	WET COD	085.	ECIAL VATIONS							
					COOL	(m)	FORCE UMD	<del></del>	BULB	DEFINS								
						32	512 14	9 039	022 7	14								
	MESSENGR TIME		CARO	DEPTH (m.)	1 %	s */	SIGMA-T	SPECIFIC VOLUME	₹ ∆ p	SOUNG	02 ml/l	PO4-P	TOTAL-P	NO2-N	NO3-N	\$104~5		s
	HR 1/10	NO.	TYPE	Derity sing			JIGMA-1	ANOMALY-X107	R 10 <sup>3</sup>	, AFFOCILL	02 mi/1	µg = 01/1	μg - al/l	µg - al/l	yg - at/1	yg - at/		C
																	<u> </u>	Н
	'	. '	STD	0000	0352	3485	2774	0003690	0000	14646	'	' '		'		'	'	1'
	17	7	085	0000	9352	34849	2774			14646								
			STD	0010	0346	3485	2774	0003643	0004									
	17	,	STD 085	0020 0027	0342 0340	3485 34848	2775 2775	0003621	0007	14645								
	17	•	STD	0030	0340	3485	2775	0003605	0011									
			STD	0050	0341	3486	2775	0003584	0016									
	17	7	085	0052	0341	34856	2775		• • • • •	14650								
			STD	0075	0340	3486	2775	0003588	0027									
	17	7	085	0094	0339	34855	2775			14656								
			STD	0100	0339	3486	2775	0003612	0036									
			STD	0125	0341	3486	2775	0003648	0045									
	17	7	STD OBS	0150 0156	0343 0343	3485 34854	2775 2775	0003692	0054	14667								
	1,	•	STD	0200	0345	3486	2775	0003746	0073									
	17	7	085	T0210	0345	34855	2775	••••		14678								
			STD	0250	0344	3486	2775	0003769	0092	14684								
	17	7	085	0262	0343	34856	2775			14686								
			STD	0300	0343	3486	2775	0003799	0111	_								
	17	/	08\$ STD	0315	0343	34858 3486	2775 2775	0003857	0149	14695								
	177	7	085	T0423	0341	34856	2775	0003071	0145	14711								
		•	STD	0500	0340	3486	2775	0003940	0188									
	177	7	OBS	0524	0340	34856	2775			14728								
			STD	0600	0342	3486	2775	0004035	0428									
	177	7	085	0629	0343	34857	2775	0004330	0.140	14747								
			STD	070 <b>0</b> 0800	0342 0341	3486 3486	2775 2775	0004120	0269									
	177	7	085	0838	0341	34857	2775	0004170	0310	14780								
		•	STD	0900	0343	3486	2775	0004266	0352									
			STD	1000	0346	3486	2775	0004380	0396									
	177	7	085	1048	0347	34864	2775			14818								
			STD	1100	0348	3487	2776	0004410	0440									
			STD	1200	0350	3487	2776	0004514	0484									
			STD	1300 1400	0352 0353	3488 3489	2776 2777	0004545	0529 0575									
			STD	1500	0354	3489	2777	0004564	0621									
	17	7	OBS	T1577	0355	34901	2777	300,1030	0-21	14911								

REFERENC	E SH	IP.				LE MA	RSDEN	STATION					ATOR'S		DEPTH	MAX. OEPTH		WAVE SERVATIONS	WEA	Crono		1   1	1000	
CTRY IO.	.   co				GITUOE	07	UARE	(GMT		YEAR	CRUIS NO.	E	NUMBER		TO BOTTOM	0.5	1 0	HGT PER S	0000	TYPE AM			HOITAT	
10001 140	-		1/10		1/10	10°	1*	MO QAY				1		-			1				1			
31 88	87 E	N   5619	N I	050	)46 W	180			120	1967						16	33	2 4	X2	618	1		0009	
							COLOR		WIND	BAR	(U+	ORY	MP. °C	VIS.	NO. OBS.	LOREERS	CIAL							
							COOE	TRANS. OIR.	OR	141.4		BULB	BULB		DEPTH?	ORZEKA	AUONS							
								31	-		54 (	011	-01	7 7	14									
	F		_					1 - 1 - 1							-			1	Т					10
	WES	ME OF NO.	CA		OEPTH (	m1	T *C	s ./.	SIG	1-AM	ANO	MALY-X	107 C	₹ △ 0 0YN. M x 10 <sup>3</sup>	. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	OCITY	O <sub>2</sub> ml/	1 PO4-P	TOTAL-P ug - 01/1	NO2-N pg - al/l	NO3-N pg - al/l	\$1 O4-\$i µg - at/\$	рH	C
	HR	1/10	-	_		_					-		_	X 10°				+	-	-		-	-	+
								1			1	- > - > -									l		1	1
				TO	000		0344	3486		775	000	0357	/0 (	0000		4643								
		120	08		000		0344	34855 3486		775 775	001	0356	. 0	0004		4643 4644								
				10 10	002		0342	3486		775		0356		0007		4645								
		120	08		002		0341	34855		775	00		,			4646								
				TD	003	-	0341	3486	_	775	00	0356	5 1	0011		4647								
				TD	005		0339	3485		175		0357		0018		4649								
		120	OB	S	005	2	0339	34854	+ 27	775						4649								
			\$	TD	007		0339	3485		775		0359		0027		4653								
				OTO	010	-	0338	3485		775	00	0360	77	0036		4657								
		120	O E		010		0338	34854		775				-0.45		4658								
				TD	012		0339	3486		775		0363		0045		4602								
				TD	015		0341	3486 34856		775 775	00	0369	28	0054		4666 4667								
		120	OE	5 T D	020		0341	3486		775	0.0	0369	26	0072		4675								
		120	OE		T020		0341	3485		775	00	0 20 :	, ,	0012		4676								
		120		510	025		0341	3486		775	00	037	30	0091		4683								
		120	OE		026		0341	3485		775						4685								
				STD	030	0	0342	3486	2	776	00	0376	54	0110	14	4692								
		120	OE	35	031	2	0342	3486.	1 2	776					14	4694								
				STD	040		0344	3487		776	00	0379	92	0147		4709								
		120		35	T041		0344	3487		776						4711								
				STD	050		د 034	3487		776	00	0389	99	0186		4725								
		120		35	051		0343	3486		776	0.0	0.104	0.4	0 / 10		4728								
		120		STD	060		0347	3487 3487		776	00	0399	74	0425		4744 4747								
		120		BS STD	061		0345	3487		776 776	00	040	6.2	0266		4759								
			_	STD	080		0342	3487		776		041.		0207		4775								
		120		35	082		0341	3486		776	-	- /				4779								
				STD	090		0342	3487		776	00	042	10	0348		4791								
				STD	100		0344	3487		776		0429		0391		4809								
		120		35	T104		0345	3486		776						4816								
				STD	110		0346	3487	_	776		044		0434		4827								
				STD	120		0348	3487		775		045		0479		4844								
				STD	130		0350	3487		775		046		0529		4862								
				STD	140		0352	3487		775		047		057		4879 4897								
		120		STD	150 T157		0354	3486 3486		775 774	00	048	40	001		4911								
		120	U	BS	1751	0	0222	2400	, ,	114					1	4217								

REFEREN	CE SHIP			= =	MARSDEN	STATION TI		DRIGINATO	R*S	DEPTH DEPTH		WAVE	WEA-	CLOUD			1000	
CIRY I	D. CODI	LATITU	1/10 LOI	NGITUDE HOON	SQUARE	IGMTI MO DAY HI	YEAR	CRUISE STAT	ION	BOTTOM S'MPL		HGT FER SE	THER	TYPE AM	-		UMBER	
	-	5621		0381W			20 1967		-		1							
31 8	387  EN	5631	IN   UP	OJOIWI	186   60   e		IND BAR	A ID TEAAD	2	NO. 50		2 3	X7	6 8	1		0010	
					COLOR	TRANS DIR.	SPEED MET	ER DRY W	ET CODE	One Se	CIAL VATIDNS							
					CDDE		FORCE (mb		JL8									
						05	522 14	9 -006 -0	22 7	14								
	MESSEI	GR CAST	CARD	DEPTH (m)	T ℃	5 %.	SIGMA-T	SPECIFIC VOLUME	DYN. M	SOUND	02 ml/l	PO <sub>4</sub> -P	TOTAL-P	NO <sub>2</sub> -N	NO3-N	\$104-\$	pН	S
	HR L		1176						x 10 <sup>3</sup>	VELOCITY		μg = αt/1	µg -'at/l	yg - 01/I	μg - αI/I	yg - 01/l		С
																Į		[1]
	,	3.0	STD	0000	0338	3486	2776	0003462	0000									
	1	20	OBS STD	0000	0338	34862 3486	2776 2776	0003466	0003	14641								
			STD	0020	0337	3486	2776	0003470	0007									
			STD	0030	0336	3486	2776	0003480	0010	-								
	1	20	085	0038	0336	34861	2776			14646								
			STO	0050	0336	3486	2776	0003501	0017									
	1	20	085	0052	0336 0336	34860 3486	2776 2776	0003514	0026	14648								
			STD	0100	0336	3486	2776	0003514	0026									
	1	20	OBS	0103	0336	34862	2776	0003221	0433	14657								
		_	STD	0125	0337	3486	2776	0003556	0044									
			STD	0150	0338	3486	2776	0003594	0053									
	1	20	OBS	0153	0338	34861	2776		0071	14666								
	,	20	STD OBS	0200 T0203	0337 0337	3486 34860	2776 2776	0003635	0071	14673								
		.20	STD	0250	0335	3486	2776	0003657	0089									
	1	20	OBS	0252	0335	34860	2776			14681								
			STD	0300	0337	3486	2776	0003716	0107									
		20	OBS	0302	0337	34860	2776			14690								
	]	20	OBS	T0397 0400	0339 0339	34864 3486	2776 2776	0003790	0145	14706 14707								
	1	.20	STD OBS	0400	0342	34869	2776	0003790	0145	14724								
			STD	0500	0342	3487	2776	0003865	0185									
	1	20	OBS	0595	0344	34865	2776			14741								
			STD	0600	0344	3487	2776	0003998	0423									
		2.0	STD	0700	0345	3487	2776	0004076	0263									
	,	.20	OBS	0795 0800	0346 0346	34868 3487	2776 2776	0004160	0304	14776								
			STD	0900	0348	3487	2776	0004207	0346									
	]	.20	085	T0996	0341	34867	2776		0.70	14807								
		-	SID	1000	0341	3487	2776	0004249	0386	14808								
			STD	1100	0342	3487	2776	0004337	0431									
			STD	1200	0343	3487	2776	0004424	0475									
			STD	1300	0343	3487 3487	2776 2776	0004511	0520									
			510	1500	0344	3487	2776	0004597	0612									
	1	20	OBS	11547	0345	34873	2776	300.004	0-11	14901								

182   OBS   OUQ   OBS   OUQ   OBS   OUG   OUG			E E	MARSDEN	AIT NOITATE		ORIGINATO	R°S	DEPIH   DEPTH	WAVE			,	ODC	
31 887 EN   5624 N   05016 W   186   60   00   23   182   1967   824   011   155   30   31   3   X7   X   9   0011	CTRY ID. COOK LATITUT		GITUDE ES						10 OF		CODE		51	ATION	
No.   No.	CODE NO.	1/10	1/10 -	10, 1, /	MO DAY HR	.1/10	NO, NUA	ABER	S'MPL'S	DIR. HGT PER SEA	TYPE	EAMT		-	
STD   0000   0337   3465   2775   0003528   0000   14640   14641   14665   14665   14665   182   085   00194   0336   3485   2776   000358   0027   0003598   0036   0027   14656   182   085   00194   0336   3485   2776   0003598   0036   0027   14656   182   085   00194   0336   3485   2776   0003598   0036   0027   14656   182   085   00194   0336   3485   2776   0003598   0036   0027   14656   182   085   00194   0336   3485   2776   0003598   0036   0027   14656   182   085   00194   0336   3485   2776   0003598   0036   0027   14656   182   085   00194   0336   3485   2776   0003598   0036   0027   14656   0027   14656   0027   14656   0027   14656   0027   14658   0027   14658   0027   14656   0027   14678   002599   0024   14668   0027   14678   002599   0025	31 887 EN 5624	N 05	016 W :						15	30 3 3	X7   X	إوا		0011	
COOK   Hart   On   COOK   Hart   On   COOK   ON   ON   ON   ON   ON   ON   ON				WAT	ER W	UAK!	)- <u> </u>	VIS.		AL					
					1-1 DIR	OR /		FT COD	4 Cay Decent						
STD   OOO   O.336   3485   2775   OOO3568   OOO   O.336   3485   2776   OOO3568   OOO   O.336   3485   2776   OOO3568   OOO   O.337   OOO   O.336   OOO   OO				0001		FORCE .		_	1.4	-					
STD   0000   0337   3485   2775   0003528   0000   16440					[29]	519 02	/  -01/  -0	11/6	14						
STD   0000   0337   3485   2775   0003528   0000   16440			DESTH (m)	T fc	5 %	SIGAS AT	SPECIFIC VOLUME	₹ A D	SOUND	Do ml/t PO4-P	TOTAL-P NO:	2-N NO3-N	SLD4-Si		5
STD   0000   0337   3485   2775   0003528   0000   14640		TYPE	51777 6117			21011111-1	ANOMALY-X107	X 103	, AFFOCILA	νg - α1/1	μg = α1/l μg =	al/l yg = al/l	yg - ot/1	pre	č
182															П
182	1 1	STD	0000	0337	3485	2775	0003528	0000	14640	, ,	'	'	'		١.
STD   0010   0336   3485   2775   0003530   0004   14641	182														
182			0010	0336	3485		0003530	0004							
STD   0030   0335   3485   2776   0003536   0011   14644     182   085   0049   0336   3485   2776   0003546   0018   14648     STD   0075   0336   3485   2776   0003566   0027   14652     182   085   0094   0336   3485   2776   0003568   0027   14655     STD   0100   0336   3485   2776   0003588   0036   14656     STD   0102   0337   3486   2776   0003588   0036   14656     STD   0150   0337   3486   2776   0003599   0044   14660     182   085   0139   03480   34859   2776   0003617     STD   0200   0338   34859   2776   0003647     STD   0200   0338   34859   2776   0003647     STD   0250   0339   3486   2776   0003647   0072   14678     STD   0250   0339   3486   2776   0003690   0090   14682     182   085   0272   0338   34859   2776   0003690   0090   14682     182   085   0272   0338   34859   2776   0003690   0090   14682     STD   0300   0338   34859   2776   0003690   0090   14689     182   085   0365   0338   34859   2776   0003690   0090   14690     182   085   0365   0338   34859   2776   0003616   0146   14706     182   085   0452   0338   34859   2776   0003816   0146   14706     182   085   0542   0343   3486   2776   0003917   0199   14690     STD   0700   0336   3486   2776   0003917   0255   14756     STD   0700   0336   3486   2776   0003917   0255   14756     STD   0700   0336   3486   2776   0004913   0265   14756     STD   0700   0336   3486   2776   0004913   0265   14756     STD   0700   0347   3486   2776   0004918   0391   14810     STD   0700   0347   3487   2775   0004526   0348   14792     182   085   0792   0344   33864   2776   0004918   0391   14810     STD   1000   0347   3487   2775   0004526   0479   14880     STD   1000   0351   3487   2775   0004526   0479   14880     STD   1000   0352   3488   2776   0004526   0479   14880		STD	0020	0336	3485	2776	0003531	0007	1 14643						
182	182														
STD   0050   0336   3485   2776   0003546   0018   14648     STD   0075   0336   3485   2776   0003566   0027   14652     STD   0100   0336   3485   2776   0003588   0036   14656     STD   0100   0336   3485   2776   0003588   0036   14656     STD   0125   0337   3486   2776   0003599   0044   14660     182   085   0139   03480   34857   27750     STD   0150   0337   3486   2776   0003617   0004617     STD   0200   0338   3485   2776   0003647   0072   14672     STD   0200   0338   3486   2776   0003647   0072   14674     182   085   0226   0339   3486   2776   0003647   0072   14678     STD   0250   0339   3486   2776   0003690   0090   14682     182   085   0272   0338   3485   2776   0003734   0109   14685     STD   0300   0338   3486   2776   0003734   0109   14690     182   085   0365   0338   34859   2776   0003816   0146   14706     STD   0400   0338   3486   2776   0003816   0146   14706     182   085   0542   0338   34859   2776   0003816   0146   14706     STD   0500   0341   3486   2776   0003997   0225   14741     STD   0600   0341   3486   2776   0003997   0225   14741     STD   0700   0336   3486   2776   0004033   0265   14756     STD   0800   0339   3486   2776   0004033   0265   14756     STD   0800   0339   3486   2776   0004043   0265   14756     STD   0800   0339   3486   2776   0004042   0306   14773     STD   0800   0339   3486   2776   0004042   0306   14773     STD   0800   0349   3486   2776   0004042   0399   14810     STD   1000   0347   3487   2776   0004026   0348   14792     STD   1000   0349   3487   2776   0004026   0479   14865     STD   1000   0349   3487   2776   0004026   0479   14865     STD   1000   0350   3488		STD				2776	0003536	0011							
STD   0075   0336   3485   2776   0003566   0027   14652   14655   STD   0100   0336   3485   2776   0003588   0036   14656   14656   STD   0125   0337   3486   2776   0003599   0044   14660   146	182														
182															
STD   0100   0336   3485   2776   0003588   0036   14656     STD   0125   0337   3486   2776   0003599   0044   14660     STD   0150   0337   3486   2776   0003617   0054   14665     STD   0150   0337   3486   2776   0003617   0054   14662     STD   0200   0338   34859   2776   072   14674     STD   0200   0338   3486   2776   0003647   0072   14674     STD   0250   0339   34863   2776   0003690   0090   14682     STD   0300   0338   3486   2776   0003690   0090   14682     STD   0300   0338   3486   2776   0003734   0109   14690     STD   0300   0338   34859   2776   14701     STD   0400   0338   34859   2776   14701     STD   0400   0338   3486   2776   0003816   0146   14706     STD   0500   0341   3486   2776   0003921   0185   14724     STD   0500   0341   3486   2776   0003997   0225   14741     STD   0700   0336   3485   2776   14760     STD   0700   0336   3486   2776   000493   0225   14741     STD   0700   0336   3486   2776   0004033   0265   14756     STD   0800   0339   3486   2776   0004142   0306   14773     STD   0900   0343   3486   2776   0004162   0348   14792     STD   0900   0347   3487   2776   0004266   0348   14792     STD   1000   0347   3487   2776   0004926   0348   1480     STD   1000   0347   3487   2775   0004526   0479   14828     STD   1200   0351   3487   2775   0004526   0479   14845     STD   1200   0351   3488   2776   0004526   0479   14863     STD   1400   0352   3488   2776   0004526   0479   14863     STD   1400   0352   3488   2776   0004526   0224   14863     STD   1400   0352   3488   277							0003566	0027							
STD   0125   0337   3486   2776   0003599   0044   14660	182														
182															
SID	102						0003599	0044	14000						
182	102						0003617	0054	14445						
STD   0200   0338   3486   2776   0003647   0072   14674   14678	192						0003617	000							
182	102						0003647	00.72							
STD   0250   0339   3486   2776   0003690   0090   14682   182   085   0272   0338   34859   2776   0003734   0109   14690   182   085   10365   0338   34859   2776   0003734   0109   14690   182   085   0452   0338   3486   2776   0003816   0146   14706   14706   182   085   0452   0338   34869   2776   0003816   0146   14706   14715   085   0542   0343   34863   2776   0003921   0185   14724   182   085   0542   0343   34863   2776   0003997   0225   14741   0700   0336   3486   2776   0003997   0225   14741   0700   0336   3486   2776   0004033   0265   14756   182   085   0730   0335   34858   2776   0004033   0265   14756   14760   0359   3486   2776   0004024   0306   14773   0350   0450   0349   3486   2776   0004026   0348   14792   182   085   0792   0344   3486   2776   0004026   0348   14792   14796   0350   0347   3487   2776   0004422   0344   14810   0350   3487   2776   0004422   0434   14828   0350   1200   0347   3487   2776   0004422   0434   14828   0350   1200   0351   3487   2775   0004526   0479   14845   0350   0352   3488   2776   0004524   0370   14880   0350   0352   3488   2776   0004524   0370   0352   3488   2776   0004524	182						00000.7								
182							0003690	0090							
182	182	OBS		0338	34859										
STD   0400   0338   3486   2776   0003816   0146   14706   14715		STD	0300	0338	3486	2776	0003734	0109	14690						
182	182	OBS		0338	34859	2776			14701						
STD   0500   0341   3486   2776   0003921   0185   14724     182   085   0542   0343   34863   2776   14732     STD   0600   0341   3486   2776   0003997   0225   14741     STD   0700   0336   3486   2776   0004033   0265   14756     182   085   0730   0335   34858   2776   14760     STD   0800   0339   3486   2776   0004142   0306   14773     STD   0900   0343   3486   2775   0004266   0348   14792     182   085   T0922   0344   34864   2776   2776     STD   1000   0347   3487   2776   0004318   0391   14810     STD   1100   0349   3487   2776   0004422   0434   14828     STD   1200   0351   3487   2775   0004526   0479   14845     STD   1300   0352   3488   2776   0004642   0244   14863     STD   1400   0352   3488   2776   0004624   0270   14880		STD					0003816	0146							
182	182														
STD 0600 0341 3486 2776 0003997 0225 14741 STD 0700 0336 3486 2776 0004033 0265 14756  182 085 0730 0335 34858 2776 STD 0800 0339 3486 2776 0004142 0306 14773 STD 0900 0343 3486 2775 0004266 0348 14792  182 085 T0922 0344 34864 2776 STD 1000 0347 3487 2776 0004318 0391 14810 STD 1100 0349 3487 2776 0004422 0434 14828 STD 1100 0352 3488 2776 0004526 0479 14845 STD 1300 0352 3488 2776 0004545 0524 14863 STD 1400 0352 3488 2776 0004624 0570 14880							0003921	0185							
STD   0700   0336   3486   2776   0004033   0265   14756     182   085   0730   0335   34858   2776   0004033   0265   14760     STD   0800   0339   3486   2776   0004142   0306   14773     STD   0900   0343   3486   2775   0004266   0348   14792     182   085   T0922   0344   34864   2776   2776   2776     STD   1000   0347   3487   2776   0004318   0391   14810     STD   1100   0349   3487   2776   0004422   0434   14828     STD   1200   0351   3487   2775   0004526   0479   14845     STD   1300   0352   3488   2776   0004524   0270   14880     STD   1400   0352   3488   2776   0004524   0270   14880	182						202305-	0.136							
182															
STD 0800 0339 3486 2776 0004142 0306 14773 STD 0900 0343 3486 2775 0004266 0348 14792  182 0BS T0922 0344 34864 2776 STD 1000 0347 3487 2776 0004318 0391 14810 STD 1100 0349 3487 2776 0004422 0434 14828 STD 1200 0351 3487 2775 0004526 0479 14845 STD 1300 0352 3488 2776 0004545 0524 14863 STD 1400 0352 3488 2776 0004624 0570 14880	192						0004033	0265							
STD 0900 0343 3486 2775 0004266 0348 14792 182 0B5 T0922 0344 34864 2776 14796  STD 1000 0347 3487 2776 0004318 0391 14810  STD 1100 0349 3487 2776 0004422 0434 14828  STD 1200 0351 3487 2775 0004526 0479 14845  STD 1300 0352 3488 2776 0004524 0>70 14880	102						0006162	0304							
182 OBS T0922 0344 34864 2776 14796  STD 1000 0347 3487 2776 0004318 0391 14810  STD 1100 0349 3487 2776 0004422 0434 14828  STD 1200 0351 3487 2775 0004526 0479 14845  STD 1300 0352 3488 2776 0004545 0524 14863  STD 1400 0352 3488 2776 0004624 0570 14880															
STD 1000 0347 3487 2776 0004318 0391 14810 STD 1100 0349 3487 2776 0004422 0434 14828 STD 1200 0351 3487 2775 0004526 0479 14845 STD 1300 0352 3488 2776 0004545 0524 14863 STD 1400 0352 3488 2776 0004624 0570 14880	182														
STD 1100 0349 3487 2776 0004422 0434 14828 STD 1200 0351 3487 2775 0004526 0479 14845 STD 1300 0352 3488 2776 0004545 0524 14863 STD 1400 0352 3488 2776 0004624 0570 14880							0004318	0391							
STD 1200 0351 3487 2775 0004526 0479 14845 STD 1300 0352 3488 2776 0004545 0524 14863 STD 1400 0352 3488 2776 0004624 0570 14880															
STD 1400 0352 3488 2776 0004624 0570 14880		STD	1200	0351	3487	2775	0004526	0479	14845						
		STD	1300	0352	3488	2776	0004545	0524	14863						
		STD			3488		0004624	0570							
182 OBS T1465 O352 34884 2776 14891	182	085	T1465	0352	34884	2776			14891						

NCE	SHIP				MARSDEM	STATION TI		ORIGINATO		DEPTH   DES	AX. PTH OR	WAVE	WEA-	CLOUD			DDC	
ID.	CODE	LATITU	1/10	NGITUDE TO	10° 1°	MO DAY H	YEAB	CRUISE STAT			OF .	HGT PER SE	THER	TYPE AM			ATION UMBER	
887	EN	5609		5050 W	186 60		21 1967				5 34	2 4	X7	8 6			2014	
901	1 - 14	2009	14   0.	וא טכטכ			IND BAR	1 10 75148	2	110		12   7	1	1 6 1 6	1	1	9012l	
					COLO		SPEED MET	ER DRY W	ET CODE	000	SPECIAL ERVATIONS							
					CDD		FORCE (mb		-									
						33	\$15 99	93 -028 -0	28 7	14		, ,						
	MESSENGR TIME	CAST	CARD	DEPTH (m)	1 70	s °/	SIGMA-T	SPECIFIC VOLUME	N A D	SOUND	O2 m1/1	PO4-P	TOTAL-P	но2-н	NO3-N	\$1 O <sub>4</sub> →\$i	ρН	Š
	HR 1/10	Ĭ NO.	TYPE				ļ	ANOMALI-AID	x 10 <sup>3</sup>	VELOCITY		µg + 01/1	νg - σ1/1	μg - ot/l	νg = αΙ/Ι	νg - οι/l		c
			STD	0000	0338	3485	2775	0003553	0000	14640								
	121	1	OBS	0000	0338	34850	2775	0003545	2004	14640								
			STD	0010	0336	3485 3465	2775 2775	0003545	0004	14641								
	121	1	085	0024	0334		2775	0003337	000,	14643								
		-	STD	0030	0334		2775	0003573	0011	14644								
	121	1	OBS	0048	0335	34847	2775			1464								
			STD	0050	0335	3485	2775	0003588	0018									
	121	,	STD OBS	0075 0096	0334	3484 34841	2775 2775	0003622	0027	14651								
	12,		STD	0100	0333	3484	2775	0003652	0036	14655								
			STD	0125	0335	3485	2775	0003664	0045	14660								
	121	1	OBS	0144	0336	34847	2775			14663	3							
			STD	0150	0336	3485	2775	0003683	0054									
	121	1	OBS	T0195 0200	0338	34848	2775	0003734	0073	14672								
	121	1	STD	0200	033B	3485 34846	2775 2775	0003734	0073	14673								
	12.	•	STD	0250	0337	3485	2775	0003751	0091									
	121	1	OBS	0289	0336	34851	2775			14687	7							
			STD	0300	0336		2775	0003775	0110									
	121	1	085	T0383	0337	34852	2775	0004444	0.140	14703								
	121		STD OBS	0400	0339		2775 2775	0003863	0149	1470								
	12.		SID	0500	0347		2115			1412	•							
	121	1	0B\$	0578	0347													
			SID	0600	0347													
			STD	0700	0346													
	12:	1	085	0772	0346													
			STD	0900	0346 0345													
	12	1	085	T0967	0344													
		_	STD	1000	0345													
			STD	1100	0348													
			STD	1200	0350													
			STD	1300 1400	0353 0355													
	12	1	STD OBS	T1464	0357													
	12.	4	003	11404	0331													

Table VI. Observed and interpolated oceanographic data for stations taken by USCGC SPENCER at Ocean Station BRAVO, 27 May-6 June 1967, prepared from NODC listing No. 31-1063 SC.

REFERENCE SH CTRY ID. CODE NO.		IDE LON	IGITUDE TOOM	MARSDEN SOUARE	STATION TIA IGMT)	YEAR	ORIGINATO	ION	10	MAX. DEPTH OF S'MPL'S	0858	WAVE RVATIONS HGT PER SE	WEA- THER COOE	CLOUD CODES	7	5	NODC TATION IUMBER	
311063 S	C 5627		104 W			56 1967	825 001		3658	16	02	20	X2	7 8			0001	
1 311 003, 3	0   302 /	14   0 >	104 41 1	WAT		IND I	AIR TEAAR	*c T	NO.			2 10 1	1 25	, ,,,	1	1	0001	
				COLOR		SPEED MARTI	ER ORY V	/ET CODI	OBS.	SPEC OBSERVA	ZADITA							
				CODE	Im) URC	FORCE [mbs		nre .	DEPTHS	0222								
					32	\$08 26	8 072 0	56 7	14									
Luss.	SENGR CAST			T'			SPECIFIC VOLUME	EAD	1002			PO .						15
T	ME OF NO.	CARD TYPE	DEPTH (m)	1 ℃	s %.	SIGMA-T	ANOMALY-X107	₹ △ D OYN. M x 10 <sup>3</sup>	. ASFOC		O 2 ml/l	PO4-P µg = 01/1	101A L-P	NO2-N ug - al/l	NO <sub>3</sub> -N yg - oi/1	\$1 O4-Si yg - oi/1	pН	c
HR	1/10	-		-				A 10		-					-			+
		6.7.0	0000	0445	2691	3750	0005094	0000	144					l			ı	
	1.57	STD OBS	0000	0465 0465	3481 34814	2759 2759	0005084	0000	146 146									
	156	STD	0010	0461	3481	2759	0005090	0005										
		STD	0020	0454	3481	2759	0005057	0010										
	156	085	0026	0454	34802	2760	0000001	0010	146									
	170	STD	0030	0448	3481	2761	0004934	0015										
		570	0050	0416	3483	2765	0004521	0025										
	156	085	0052	0413	34830	2766	0004321	0023	146									
	170	STD	0075	0380	3484	2770	0004094	0035										
		STD	0100	0357	3484	2772	0003893	0045										
	156	085	0103	0355	34842	2773			146									
		STD	0125	0355	3485	2773	0003820	0055										
		STD	0150	0355	3485	2773	0003842	0065										
	156	085	0155	0355	34854	2774			146	573								
		STD	0200	0358	3486	2774	0003835	0084	146	662								
	156	085	T0209	0358	34866	2774			146	684								
		STD	0250	0358	3487	2774	0003838	0103										
	156	085	0259	0358	34866	2774			146									
		SID	0300	0357	3486	2774	0003919	0175										
	156	085	0311	0357	34859	2774			147									
		STD	0400	0357	3487	2775	0003958	0162										
	156	085	T0413	0357	34867	2775	0004007	0.10	147									
	157	STD	0500 0518	0358 0358	3486 34858	2774 2774	0004097	0202	147									
	156	08S STD	0600	0358	3486	2774	0004185	0443										
	156	085	0621	0358	34866	2774	0004163	0243		752								
	100	STD	0700	0356	3487	2775	0004204	0285										
		STD	0800	0354	3487	2775	0004261	0328										
	156	085	0831	0353	34866	2775			147									
		STD	0900	0353	3487	2775	0004343	0371										
		STD	1000	0353	3486	2775	0004440	0415										
	156	085	T1040	0353	34862	2775			148	319								
		STD	1100	0354	3487	2775	0004511	0459	148	330								
		STD	1200	0356	3487	2775	0004561	0505	148	347								
		STD	1300	0357	3488	2776	0004604	0551	148	865								
		STD	1400	0359	3489	2776	0004655	0597										
		STD	1500	0361	3490	2776	0004706	0044										
	156	085	T1573	0362	34900	2777			149	913								

REFERE	ENCE	SHIP				E M	ARSDEN DU ARE	STATION T	IME	WE	ORIGIN	ATOR'S		DEPTH	MAX		WAVE	WEA-	CLOUD			NODC	
CODE	10. NO.	CODE	LATITU		LONGITUDE '1/10	10 7 L				YEAR		TATION		TO BOTTOM	OF	0.0	SERVATIONS	THER	CODES	1		TATION	
-				1/10		110		MO DAY H				40 M BEI	,		S'MPL	S DIR.	HGT PER SE	A	TYPE A M	7			
311	1063	s sc	5631	N	05107 W	1 18		05 28		1967				3658	15	36	110	X 2	8 8			0002	
								_	SPEED	BAR			VIS.	NO. OBS.	SPE	CIAL							
							COLOR	TRANS DIR.	OR			WET	CODE	DEPTHS	OBSERY	ZHONS							
								29	+				_	1.6									
								27	303	24	4 012	050		14							т	_	
		MESSENG		CARD		(m1	T *C	s */	SIG	MA-T	SPECIFIC VOLU	ME	E A D	sou	UND	O2 ml/	PO4-P	TOTAL-P	NO2-N	NO3-N	SI O 4 - Si	pΗ	S
		HR 1/10	of NO.	TYPE							ANOMALY-X1		X 10 <sup>3</sup>	VELU	DCHY		yg = a1/1	pg - a1/1	µg - al/l	yg - 01/1	yg - at/l		С
		1		ST	0 000	0	0458	3484	27	62	000480	7 (	0000	14	691		1	1					
		09	2	085	000	0	0458	34841	27	62				14	691								
				ST	0 001	0	0435	3484	27	64	000457	0 (	0005	14	503								
				ST			0420	3484		66	000441	9 (	0009		678								
		09	2	OBS			0415	34844		67					677								
				ST			0416	3485		67	000433		0014		678								
		0.0		ST			0419	3486		68	000431	0 (	0022	. 14	683								
		09	2	08S		_	0419	3482Q 3487		71	000396	0 ,	0033	1.0	675								
				ST			0369	3487		74	000378		042		670								
		09	2	085			0368	34871		74	000010	,	,072		670								
		• • •	_	ST			0365	3487		74	000378	6	0052		673								
				ST			0362	3487		74	000375		0061		675								
		09	2	085			0361	34867		74		-			676								
				ST			0361	3487		74	000379	4 1	080		683								
		09	2	OBS	1020	15	0361	34875	27	775				14	684								
				ST	0 025	Q	0356	3487	27	75	000378	6	JU 9 9	14	689								
		09	2	085			0355	34868		75					690								
				ST			0358	3487		75	000384	7 (	0118		698								
		09	2	085			0358	34870		75					700								
				ST			0355	3487		75	000388	1 (	157		714								
		09	12	085			0355	34875		75	000.00				716								
		0.0		ST			0354	3487		75	000398	10	0196		730								
		09	2	085			0354	34867 3487		75	000405	.0	0436		732								
		09	12	ST 085			0352	34874		75 76	000405	0	1236		746								
		09	~	ST			0351	3467		76	000409	0	0277		762								
				ST			0350	3488		76	000415		0318		778								
		0.9	2	085			0350	34875		76	300-12	,			782								
		0,	-	ST			0350	3488		76	000423	0	0360		795								
				ST			0349	3488		776	000420		0403		811								
		09	2	085			0349	34875		176					816								
				ST			0350	3488		776	000436	2 1	)446		828								
				ST			0352	3488		76	000446	4	0490		846								
				ST	0 130	U	0354	3488	47	176	000456	7 1	3535	14	854								
				ST			0356	3489		77	000459		3>81		881								
				ST			0357	3469		776	000469	8	0628		899								
		0.9	12	085	1153	30	0358	34896	27	777				14	906								

NCE 10, NO.	SHIP	LATITUI		LON	IGITUDE	4 DC	SDU	ARE		ION TIA		YEAR	CRUI		ATOR'S	4	DEPTN TO 801104	DEPTI OF S'MPL	OB	WAVE SERVATION		WEA- THER COOE	CLOUD COOES		57	OOC ATION UMBER	
NU.			1/10		1/10	+	10°	1-						_		<u>"</u>			1		**-					-	
063	scl	5634	N	05	100 M	1	86					196	7 B2				3658	14	60 1	4   4	- 1	XZ	718	I	- 1	00031	
								WAT		+	ND		RO-	AIR TE		VIS.	NO. OBS.		ECIAL								
								COLOR	TRANS	OIR,	OR		TER	ORY BULB	W ET BULE	CODE	OEPTHS	OBSER	2 NOIT AV								
								-	-	-	FORCE	+-	-+		-	-	2.6										
									Ļ	08	508	1 4	34	056	05	-	14	L			_						П
	MESSENGR		CA		OEPTH	(m)	Т	°C	s	-/	SIGA	t-A	SPECI	FIC VOLU		₹ A O		UND	O2 ml/l	PO4-P		TA L-P	NO <sub>2</sub> -N	NO3-N	SIO4-Si	pΝ	č
	TIME HR 1/10		TY	PE	000				'				AND	MALY-X	١,	x 103	VEL	OCITY		µg - α1/	gq 1	- ot/l	1\fo + gu	µg - a1/1	µg = at/!		C
	1	' '	ς.	GTO	000	ω,	Ω	488	34	83	27	57	00	0522	7	0000	14	703	'	'	,						
	10	9	08		000			488		828	27							703									
	10	,		TD	001			437		83	27		00	0471	8	0005	1.4	1683									
				TO	002			405		82	27			0441		0010	14	+672									
	10	9	08		002		0	399	34	822	27	67					14	670									
			5	TD	003	0	0	404	-	82	27		00	0441	. 7	0014		673									
	10	9	08	5	004	5		407		826	27							+677									
			_	TD	005			398		83	27			10432		0023		1674									
				TD	007			362		83	27		00	0399	14	0033		663									
	10	9	08		009			349		839	27		0.0			0062		660									
				TD	010			351 356		85	27 27			10383 10383		0043 0052		669									
	10	^	08	TO	012			358		855	27		00	0000	, ,	00 ) 2		671									
	10	9		10	015			358	_	86	27		0.0	0379	Q	0062		+674									
	10	٥	08		1018			359		866	27		•					+680									
	10	,		TO	020			355	_	86	27		0.0	0381	.0	0081		+681									
	10	9	08		022			351		859	27						14	+684									
		•		TD	025		0	353	34	86	27		00	0383	3	0100	14	+688									
	10	9	08	3.5	027	74	0	355	34	867	27	75					14	693									
			S	OTO	030	00	0	352	34	87	27	75	00	0382	2.1	0119	14	696									
	10	9	08	3.5	T036	5	0	349	34	862	27	75						+705									
				OTO	040			350		86	27		00	0391	6	0158		+712									
	10	9	08		045			352		862	27							+722									
				016	050			353		87	27		00	0400	9	0198		+729									
	10	9	OE	_	T054		_	354	-	869	27		0.0	0.60	,	0/20		738									
				10	060			353		87	27			00406		0438		4746 4762									
	* 0	0		OTO	070			351 350		867	27 27		Ü	00413	0	02 19		766									
	10	9	QE	5 T D	072			350		87	27		0.0	0420	00	0321		+778									
				TO.	090			349		87	27			0426		0363		+794									
	10	Q	0.6		1091			349		870	27		3(	, , , , ,				+796									
	10			510	100			350		87	27		0.0	043	23	0406		+812									
				STD	110			351	_	88	27			0043		0449		4829									
				STD	120			354		88	27		-	0446		0494	14	4847									
				STD	130			357		89		76		0454		0>39	1.4	4865									
				STD	140			361		89		76		00464		0585	1.4	4884									
	10	9	OE		T141		0	362	34	893	27	76					14	4886									

STATIO   S																												
Strict   Continue	REFER	EHCE	Cura					E E	MARS	OEH	STATION	TIME						Ι	OEPTH	MAX. GEPTH	0.00	WAVE					NODC	
Note	CODE	10.		LATITU		LOH		E P					1	101				R	0 220	OF			0000	:				
WATER   WATE														-+-				+							1			
Cool	31	1063	SC	5631	N	050	358 W		186				196	7 8			~ T	٤		18	04	2 2	X2	6 8			0004	
									-			Sps			_	7 -	vı	s.		SPEC	IAL							
												.   0	R 177				LB CO		DEPTHS	OBSERV	ATIONS							
Missing Cast									ı		04	-		13	067	04	1 7	1	14									
No.   No.		1									1	+	-	$\overline{}$		┵┯		_	<del>-</del> -	T		T			_	_		
STD   0000			MESSENGR	CAST			OEPTH	(m)	τ	°C	s */	SI	GMA-T	51	PECIFIC VOL	UME 107	DYH.	M.			O <sub>2</sub> ml/l						рН	C C
098			HR 1/10	1		-					-	$\perp$		_			X 10	J	1122			pg - 0171	pg - 0.77	pg - 01/1	) pg - 61/1	pg = 6171	ļ	
098																												11
STD   0010   0474   3482   2758   0005142   0005   14699		ľ												-	00051	42	000	0										
STD   0020			09	8		-	-																					
098																												
STD   0030				_											00051	50	001	.0										
STD   ODSD   OA24   3483   2764   O004611   O025   14685			09	8											00051	24	0.01	5										
O98																												
STD   0075   0386   3484   2769   0004176   0036   14673     STD   0100   0361   3485   2772   0003894   0046   14667     O98   OBS   0112   0353   3485   2774   0003808   0056   14667     STD   0125   0353   3485   2774   0003802   0065   14667     STD   0150   0353   3485   2774   0003802   0065   14667     O98   OBS   0168   0353   3485   2774   0003802   0065   14671     O98   OBS   0168   0353   3486   2774   0003791   0084   14678     O98   OBS   0021   0349   34860   2775   0003791   0084   14678     O98   OBS   00250   0348   3486   2775   0003784   0103   14686     O98   OBS   0278   0347   34856   2775   0003784   0103   14686     O98   OBS   0346   34858   2775   0003835   0122   14699     O98   OBS   0346   34858   2775   0003856   0161   14712     O98   OBS   0446   0352   3487   2776   0003856   0161   14712     O98   OBS   0559   0351   34872   2776   0003931   0200   14729     O98   OBS   0559   0351   34872   2776   0003931   0200   14729     O98   OBS   07070   0350   3487   2775   0004035   0440   14745     O98   OBS   07073   0350   34868   2775   0004166   0280   14761     STD   0700   0350   3487   2776   0004184   0322   14778     STD   0900   0349   3487   2776   0004184   0322   14778     STD   0900   0350   3488   2776   0004280   0364   14795     STD   0900   0350   3488   2776   0004410   0494   14866     STD   1000   0350   3488   2776   0004440   0494   14866     STD   1000   0353   3489   2777   0004440   0494   14866     STD   1000   0353   3489   2777   0004440   0494   14866     STD   1400   0353   3489   2777   0004577   0584   14881			0.0	a	_		-				-				00040	11	002	. )										
098			09	0											00041	76	oua	6										
098									_							-												
STD   0125   0353   3485   2774   0003808   0056   14657			0.0	a											00000	, ,												
STD   0150   0353   3485   2774   0003622   0065   14671   14674   1			0,	0		-									оорза	n n	005	6										
098         08S STD         0168         0353 3486         34850 2774         2774 0003791         0084 14678         14674 14678           098         0BS STD         0220         0349 3486         3486 2775         0003784 0003784         0103 0103 0122 0003835         14686 0103 0122 014690           098         0BS 0BS 0BS 0334 0346         0347 3486 34858         2775 0003835         0122 0003856         14694 04699           098         0BS 0BS 0BS 0BS 0BS 0BS 0559         0350 0352 0351 3487         2776 2776 0003856         0161 014712 0003856         14712 020 14720 014720 014729           098         0BS 0BS 0BS 0559 0351 3487         2776 0004035 0350 34868         0004035 2775 0004035 0404106 0280 14761 0004260 0364 14794         14795 14795 0004378 0004378         14795 0004378 0496 0497 048129           098         0BS 0BS 0BS 0905 0350 3488 0776 0004260 0350 3488 2776 0004260 0364 0407 14812 098 085 085 085 085 085 085 085 085 085 08																												
STD   0200   0350   3486   2774   0003791   0084   14678   14682   1			0.9	я													• • •											
O98			• ,	•											00037	91	008	14										
STD   O250   O348   3486   2775   O003784   O103   14686     O98   OBS   O278   O347   3486   2775   O003835   O122   14694     O98   OBS   O334   O346   34858   2775   O003835   O122   14699     O98   OBS   O344   O350   3487   2776   O003856   O161   14712     O98   OBS   O446   O352   34875   2776   O003856   O161   14712     O98   OBS   O446   O352   34875   2776   O003856   O161   O161   O161     STD   O500   O352   3487   2776   O003931   O200   O16729     O98   OBS   O559   O351   34872   2776   O004035   O240   O1673     STD   O600   O351   3487   2775   O004035   O240   O1673     STD   O700   O350   3487   2776   O004106   O280   O1676     STD   O700   O350   3487   2776   O004106   O280   O1676     STD   O900   O349   3487   2776   O004106   O280   O264   O264     STD   O700   O350   3487   2776   O004260   O364   O364   O364   O364     STD   O700   O350   3487   2776   O004260   O364   O364   O364   O364   O364   O364     STD   O700   O350   3488   2776   O004260   O364   O477   O36			09	8					0	349	34860	2	775						146	582								
STD   0300   0347   3486   2775   0003835   0122   14694				-			025	0	0	348	3486	2	775		00037	84	010	13	146	680								
098			09	8	08	S	027	8	0	347	34856	5 2	775						146	590								
STD   0400   0350   3487   2776   0003856   0161   14712					S	TD	030	0	0	347	3486	2	775		00038	35	012	2	146	594								
098			09	8	08	S																						
SID 0500 0352 3487 2776 0003931 0200 14729 088 08S 0559 0351 3487 2776 14739 SID 0600 0351 3487 2775 0004035 0240 14745 098 08S 70673 0350 34868 2775 14757 SID 0700 0350 3487 2776 0004106 0280 14761 SID 0800 0350 3487 2776 0004184 0322 14778 SID 0900 0349 3487 2776 0004280 0364 14794 098 08S 0905 0349 3487 2776 0004280 0364 14794 098 08S 0905 0349 3487 2776 0004280 0364 14794 SID 1000 0350 3488 2776 0004281 0407 14812 SID 1100 0352 3488 2776 000438 0450 14829 098 08S 71142 0352 34882 2776 000438 0450 14829 098 08S 71142 0352 34882 2776 0004440 0494 14846 SID 1300 0353 3489 2777 0004440 0494 14846															00038	56	016	1										
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098			09	8											00040	26	074	.0										
STD   0700   0350   3487   2776   0004106   0280   14761   STD   0800   0350   3487   2776   0004184   0322   14778   14779			0.0	9											00040	,,	0-4											
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STD 1200 0353 3489 2776 0004440 0494 14846 STD 1300 0353 3489 2777 0004491 0539 14863 STD 1400 0354 3489 2777 0004547 0584 14881					S	TD	110	0	0	352	3488	2	776		00043	78	045	Q	148	829								
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STD 1400 0354 3489 2777 0004547 0584 14881									-								-											
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510 1500 0354 3490 2777 0004597 0030 14898																												
270 170 0001 2101 2770 0001714 0747 16040																												
STD 1750 0354 3491 2778 0004714 0746 14940			0.0												00047	14	074	0		-								
098 OBS T1764 0354 34910 2778 14942			09	8	OB	55	11/6	-4	0	354	3491	0 4	. / /8						14	742								

REFER	ENCE	SHIP					EE	MARS	DEN	STATION	TIME			C	RIGINA	ATOR'S		DEPTI	H DEP			AVE	WEA	CLOUD			NODC	1
CTRY	ID. NO.	CODE	LATITU		LON	GITUDE	NDC	SOU		(G N			EAR	CRUISE	2	TATION		TO 80110	0	OF C		ZNOITAV	THER	CODES		5	TATION	
-	140.	-		1/10		1710	1	10"	1.	MO DAY	HR,1/	10		NO,	N	UMBER			"" S'M	PL'S Dif	H J	GT PER SE	A CODE	TYPE AM	1		DWOEK	4
31	1063	SC	5629	N	05	104 W		186	61	06 01			967	825	00			356	0 1	8 0	7 6	2 4	XZ	7 8			0005	, l
								-	WA		WINI		BARO	-	IR TEA	RP, °C	VIS.	NO.		SPECIAL								
									COLOR	TRANS. D	IR,	OR OR	M ETE (mbs		RY JLB	W ET RULB	CODE	OBS.	0.000	ERVATION	12							
								ŀ		-		DRCE		-			+	-			$\dashv$							
										0	7 5	8 0	18	b 0	61	056	7	14			٠,							
		MESSEN	CAST	CA		DEPTH	(m)	т	°C	5 %	.	SIGMA	_ r	SPECIFIC	VOLU		YN, M		ОИИО	02 m	JZL	PO4-P	TOTA L-P	NO2-N	NO3-N	\$104-5	рН	S
		HR 1/1	0	TY	rt									ANOM	ALT-XIC	"   -	x 10 <sup>3</sup>	. VE	LOCITY			ا/15 - وير	µg - et/l	µg = 01/1	νg ~ σ1/1	μg = at/l	p+1	c
				S	TD	000	0	0	477	3464	,	276	0 '	000	502	5 (	000	1	4699	9	1			'	1			
		0.9	7	OB	S	000	0	0	477	3483	9	276	0					1	4699	9								
					TD	001			475	3484		276	0	000	503	6 (	0005	1	4699	9								
					TD	002			473	3483		276		000	504	7 (	010		4700									
		0 9	7 7	OB		002			471	3463		276							4701									
					TD	003			464	3483		276		000			015		4698									
		0 9	27	08	D	005			409 397	3484		276		000	438	3 (	0024		4678									
		0 :	, ,		10	007			388	3486		276 277		000	402	2 (	035		4674									
					TD	010			378	3487		277			387		1035		4674									
		09	7	OB		011			374	3487		277		000	507	٠ ،	, , ,		4675									
			•		TD	012			372	3467		277		000	383	6 (	054		4676									
					TD	015	0	0	368	3466		277			389		064		4678									
		09	97	OB	S	016	9	0	365	3485	8	277	3						4680									
				S	TD	020	0	0	359	3486		277	4	000	388	0 (	084		4684									
		0.9	97	OB	S	1022	4	0	356	3485	4	277	4						4685									
				S	TD	025	0	0	357	3486		277	4	000	386	8 (	103	1	4690	)								
		0 9	97	08		028			357	3486		277	4					1	4695	5								
					TD	030			359	3486		277		000	391	4 (	122	1	4699	9								
		0 9	97	OB		033			362	3486		277					. ,		4706									
		0.0	. 7		TD	040			359	3487		277		000	396	4, (	1162		4716									
		0 9	7 1	QB	10	T045			357 357	3487 3487		277		000	601	0 (	140.1		4723									
		09	27	OB		056			356	3487		277		000	401	v l	1202		4731									
		0	,		TD	060			358	3487		277		000	411	0 0	1442		474] 4746									
		0.9	97	08		067			361	3467		277		000	477	0 (	-42		4762									
					TD	070			360	3487	-	277		000	421	7 (	284		4766									
				_	TD	080			356	3487		277		000			326		4781									
					TD	090			352	3487		277			428		369		4795									
		0 9	97	OB	S	091	.2	0	351	3486		277							4797									
				S	TD	100	0	0	351	3487		277	5	000	436	9 (	412		4814									
					OT	110			352	3487		277	5	000	445	5 (	456	1	4829	9								
		0 9	97	08		T115			352	3487		277						1	4838	3								
					TD	120			352	3488		277			449	-	501		4846									
					TD	130		-	353	3468		277			456		1546		486									
					10	140		-	354	3488		277			462		1592		4880									
					TD	150			354	3469		277			468	-	639		4897									
		0.4	97	08	TD	175			356	3490		277		000	483	1 (	758		4941									
		0	,	VI		1113		U.	356	3489	0	277	4					1	4948	3								

REFER	ENCE	SNIP			e :: :: : : : : : : : : : : : : : : : :	MARSDEN SQUARE	STATION TI		DRIGINAT	OR'S	DEPTH DEP		WAVE SERVATIONS	WEA-		T		NDDC	
CODE	ID. ND.	CDDE	LATITU	1/10	NGITUDE HOUSE		MO DAY H	YEAR		TION	10	PL'S DIR	HGT PER SE	THER	TYPE AM			TATION	
3.1	1063	sc	5627					99 1967								,			
1 21	1003	30	3621	N   U:	100 W	186 61 WAT		IND	A ID TEAAD	· ~ T	3580 1	.9 18	12121	X2	7 8	1	i	0006	
						COLOR	TRANS DIR	SPEED MET	0-	WET CODE	OBS.	SPECIAL ERVATIONS							
						CODE	(m) DIR	FORCE (mb	a) BULB I	IULB	DEPTHS DEST								
							18	510 18	8 067	061 7	14								
		MESSENG		CARD	DEPTH (m)	7 %	s °/	SIGMA-T	SPECIFIC VOLUME	₹ △ D DYN, M	SOUNG	01/	, PO4-P	TOTAL-P	NO2-N	NO3-N	SID4-SI		5
		HR 1/10		TYPE	Derth (m)	1 ' '	3 /**	SIGMA-I	ANOMALY-E107	X 10 <sup>3</sup>	. AFFOCITA	O2 m1/	pg = 01/1	μg - et/l	µg - 01/1	μg - 01/I	pg = 01/1	pН	c
																			$\top$
			, ,	STD	0000	0498	3482	2756	0005397	0000	14707	7	, ,		'	'	1	'	1 '
		09	9	OBS	0000	0498	34820	2756			14707	7							
				STD	0010	0491	3483	2757	0005294	0005									
				STD	0020	0480	3483	2759	0005141	0011									
		09	0	STD OBS	0030	0464	3484 34836	2761 2761	0004942	0016	14698								
		V 7	7	STD	0050	0412	3485	2768	0004315	0025									
		09	9	OBS	0059	0394	34855	2770	000.313	0023	14674								
				STO	0075	0383	3486	2771	0003974	0035									
				STD	0100	0369	3486	2773	0003859	0045	14670	)							
		09	9	085	0121	0361	34867	2774			14670								
				STD	0125	0361	3487	2774	0003750	0055									
		09		\$TD 08S	0150 0184	0360 0359	3487 34864	2774 2774	0003770	0064	14680								
		0 9	7	STD	0200	0359	3486	2774	0003819	0083									
		09	9	OBS	T0248	0358	34864	2774	000-017	0.00	14690								
				STD	0250	0358	3486	2774	0003853	0102	14690	)							
				STD	0300	0358	3487	2774	0003882	0121	14699	9							
		0 9		OBS	0313	0358	34866	2774			14701								
		0 9	9	OBS	0378 0400	0359 0359	34868 3487	2774	0003016	0171	14712								
				ST0	0500	0356	3486	2774 2774	0003966	0161									
		09	9	OBS	10505	0356	34864	2774			1473								
				STO	0600	0358	3487	2774	0004142	0242									
		09	9	OBS	0631	0358	34865	2774			14753	3							
			_	STD	0700	0357	3486	2774	0004240	0484									
		0 9	19	OBS STD	T0750	0357 0356	34862 3486	2774 2774	0004321	0326	14773								
				STD	0900	0355	3486	2774	0004321	0370									
				STD	1000	0354	3486	2775	0004452	0414									
		0.9	9	OBS	1005	0354	34863	2775			14814								
				STO	1100	0354	3487	2775	0004513	0459	14830								
				STD	1200	0353	3487	2775	0004582	0504									
		0.9	19	OBS	T1253	0353	34867	2775			14855								
				STD	1300	0354	3487	2775	0004637	0550									
				STO	1400 1500	0355 0356	3487 3487	2775 2775	0004730	0297									
				STD	1750	0358	3489	2776	0004911	0767									
		0.9	9	OBS	T1899	0360	34896	2777	3004711	0.01	14968								
		- ,					2 +0 70				, 0 (								

REFERENCE		_ e	MARSDEN	STATION TIA		ORIGINATO	DR*S	DEPTH	MAX. DEPTH		VAVE	WEA-	CLOUG		- 1.5	DDC	
CTRY IO. CODE LATIT	UDE LOF	GITUDE LESS	SOUARE	(GMT)	YEAR	CRUISE STA	TION	OT MOTTOR	OF		RVATIONS	THER	TYPE AM		N N	UMBER	
CODE NO.	1/10	1/10 =	10° 1°	MO DAY HE	1,1/10	NO, NU	ABER	-	S'MPL'S		GT PER SE	^	1	-			
311063 SC 563	1 N 05	052 W	186 60	06 03 0	98 1967	B25 007		3567	18	17	2	X2	7 8	1	- 1	0007	
. 32,2000, 00 ( 100			WA	TER W	INO BAR	AIR TEMP.	℃ VIS.	NO.	SPEC	IAL							
			COLOR	TRANS. DIR.	SPEED MET		VET COD	DEPTHS	OBSERVA	SNOT							
			CODE		FORCE (mb	-		1									
				17	510 02	0 056	50 7	14		1_							П
MESSENGE CAST	CARD		T *C	s */		SPECIFIC VOLUME	₹ ∆ O	sou	ONL	O2 m1/1	PO4-P	TOTAL-P	NO2-N	NO3-N	SIO4-Si	pΝ	Š
TIME OF NO.	TYPE	DEPTH (m)	1 (	5 7	SIGM A-T	ANDMALY-X107	X 10 <sup>3</sup>	, AETC	CITY	0 2	μg = α1/(	μg = o1/l	μg = at/l	µg - al/l	yg - at/1		c
HR 1/10								$\top$									11
	STD	0000	0478	3478	2755	0005464	່ວບວດ	1 14	698			1	'	•	'		•
0.04	085	0000	0478	34782	2755	0003101	0.00		698								
098	ST0	0010	0452	3478	2758	0005183	0005		689								
	STD	0020	0434	3479	2760	0004998	0010	14	683								
098	oBs	0025	0427	34786	2761			14	681								
070	STD	0030	0427	3479	2761	0004884	001	5 14	682								
	STD	0050	0422	3482	2764	0004673	002	5 14	684								
098	OBS	0051	0421	34817	2764				683								
***	STO	0075	0384	3482	2768	0004261	0036		672								
	STO	0100	0360	3483	2771	0004004	004		666								
098	OBS	0102	0359	34829	2771				666								
	STO	0125	0359	3484	2772	0003934	005		670								
	STD	0150	0359	3484	2772	0003956	00.6		674								
098	obs	0154	0359	34841	2772	0000015	00.0		675 681								
	STD	0200	0357	3484	2773	0003945	008		682								
098	OBS	T0208	0356	34845	2773 2774	0003918	010		690								
	STD	0250	0358	3486	2774	0003916	010	-	691								
098	OBS	0257	0358	34857 3486	2774	0003966	012		699								
0.00	STD	0300 0307	0360 0360	34857	2773	0003900	012		700								
098	OBS	0400	0356	3487	2775	0003928	016		714								
098	STO OBS	T0410	0355	34869	2775	0003720	0-0	-	715								
098	STD	0500	0356	3486	2774	0004061	040		731								
098	085	0526	0356	34860	2774	3			735								
<b>470</b>	510	0600	0355	3486	2774	0004157	024	6 14	747								
098	OBS	0642	0355	34860	2774				754								
570	STD	0700	0354	3486	2774	0004225	048		763								
	STO	0800	0352	3486	2775	0004286	033		779								
098	OBS	0889	0351	34860	2775				793								
	STO	0900	0351	3486	2775	0004357	037		795								
	STD	1000	0351	3486	2775	0004419	041		812								
	STD	1100	0350	3486	2775	0004488	046		828								
098	OBS	T1142	0350	34864	2775	0004526	050		845								
	STD	1200	0351	3487	2775 2775	0004525	055		863								
	STO	1300	0353 0354	3487 3487	2775	0004728	060		880								
	STD STO	1400 1500	0356	3488	2776	0004756	064		898								
	STD	1750	0360	3489	2776	0004936	076		942								
098	OBS	1792	0361	34896	2777	20020			950								
0.78	003	1176	V 701	34070	~ ' ' '												

REFERENCE	T		ONGITUDE I	MAR	OEN	STATION THE		. $\square$		ATOR'S		DEPTH	MAX.		WAVE		WEA-	Crono			NOOC	1
CODE NO. CODE	LATITU	1/10	NGITUDE	10°		MO GAY HI	YEA			TATION		TO ROTTOM	0.5	[ OK.	ERVATIO		THER	CODES	]		TATION	
	6400							-	_				T.		HGT PER	SEA		TYPE AM	-			1
311063 SC	5633	N O	5057 W	186	60		02 196		25 00 AIR TE			3612	14	13	11 2	- 1	X 1	7 5	!	ı	0008	1
					COLOR		SPEED M	ARO-	DRY	WET	VIS.	HO. OIIS.		CIAL								
					COOE	trans oir.		mbel	AULR	AULR	-	DEPTHS	OBSERV									
						13	506	078	067	050	7	14										
MESSEN	GR CAST	CARO						tes	CIFIC VOLU		E A D	T	ОНО		PO4-		AL-P				T	Τ,
TIME	및 NO.	TYPE	OEPTH (m)	1 1	τ.	s */	SIG MA-1	T A	OMALY-X	97°   0	X 10 <sup>3</sup>	. VELO	CITY	0 2 ml/l	μg - αt		+ at/l	HO <sub>2</sub> -N μg - at/l	HO3-H	SIO4S μg - αl/		ć
NK 17	10			+			<del> </del>	_		-			-		+	+-	-		-		┼─	
	Ţ	STO	0000	١ ،	497	3483	2757	1 0	00528	ا ما	0000	1 14	707		1	- 1	- [			Į.	1	11
1	02	085	0000	-	497	34833	2757	•	00326		,000		707									
•		STO	0010		487	3484	2758	0	00513	8 (	0005		704									
		STD	0020	0	470	3485	2761		00489		0010		699									
1	02	085	0023	0	464	34852	2762						697									
		STD	0030	0	440	3485	2765	0	00456	1 (	0015	14	688									
1	02	085	0048		392	34854	2770					14	671									
		STD	0050	-	390	3486	2771	_	00401		0024		671									
		STD	0075		374	3487	2773	0	00381	0 (	0033		668									
1	02	085	0095		365	34874	2774	_		_			668									
		570	0100	-	364	3488	2775		00369		043		668									
,	0.0	STD	0125		362	3488	2775	U	00367	8 (	0052		672									
1.	02	08S 5TD	0143 0150		360 359	34880 3488	2775 2775	0	00365		0061		674 674									
1.0	02	085	0192		357	34876	2775	·	00303	,	0001		680									
•	- 2	STD	0200		357	3488	2775	0	00371	3 (	080		682									
11	02	085	0240		359	34876	2775	•	003.1	•	,		689									
•	- •	STD	0250		359	3488	2775	0	00374	3 (	0098		691									
10	02	085	0288		359	34884	2776	·					697									
		STD	0300	0	359	3488	2776	0	00375	7 (	117		699									
1	02	085	T0386	0	358	34880	2776					14	713									
		STD	0400	0	358	3488	2776	0	00386	4 (	155	14	715									
1	02	085	0478		357	34870	2775						728									
		STD	0500		357	3487	2775	0	00400	1 (	194		731									
1	02	085	T0578		358	34878	2775	_	0016				745									
		STD	0600		358	3488	2775		00403		235		749									
,	0.0	570	0700 0767	-	360 361	3488 34885	2775	0	00414	2 (	275		766									
1	02	085 STD	0800		360	3488	2776	0	00422		317		778 783									
		STO	0900		356	3488	2776		00426		3360		797									
1	02	085	T0956		355	34878	2776		55426		,,,,,,		806									
•		STD	1000		355	3488	2776	0	00433		0403		814									
		STD	1100		355	3488	2776		00442		)447		831									
		STD	1200		356	3488	2776		00450		1491		847									
		STD	1300		356	3488	2776		00459		537		864									
		STD	1400		356	3489	2777		00460		583		881									
1	02	085	T1444		356	34891	2777						889									

Çξ	SHIP				T S	M ARS		STATION	TIME	YEAR		IGINATO		DEPTH	MAX.	08	WAVE SERVATIONS	WE		0U0.			NODC	
D.	CODE	LATITUO	1/10	LDNGITUDE	07	10°			HR,1/10	TEAR	ORUISE NO.		TIDN ABER	BOTTON	DE	00	HGT PER S	CDI	\c \	E AMT			UMBER	
		F 4 2 0					1			10.7	-				1								0000	
063	SC	5629	N C	05059	W	186	60 (	06 06	095 WIND	1967	AI	QQ9 TEMP.	° [	3605	15	05	10 3	X.	4   4	8			0009	
									SPEED	- BARD METE	)		VIS.	NO. OBS.		CIAL /ATIONS								
							CODE	(m) DIR	FORCE				ULB	DEPTHS	O # 3E III .	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
								05	506	13	2 07	2 (	061 3	14										
	MESSENGR	CAST	C400			T			1		SPECIFIC 1	VOLUME.	ΣΔD	SD	UND		PD4=P	TOTAL-	. NO	2-N	NO3-N	SID4-SI		s
	TIME 0	ND.	CARD	DEPT	H (m.)	T	°C	s %.	SIG	T-AN	ANOMA		₹ △ D DYN. W x 10 <sup>3</sup>	VEL	DCITY	D2 m1/	yg - a1/	μg - al.	η μg.	01/1	µg - at/1	yg - al/l	pΗ	C
	HR 1/10					+							1	+			-		+				-	Н
		1	ST	n no	000	0	539	3475	27	45	0006	382	0000	14	723		1	l	ì	- 1			1	j i
	095		OBS		000		539	3475		45	0000	,,,,,,	0000		723									
	0,,,		STI		10		508	3475		49	0006	044	0006		712									
			ST	0 00	20	0	483	3475	27	52	0005	781	0012	1.4	703									
	095	5	085	00	25	0	473	34749	27	53				14	700									
			ST	D 00	130	0	468	3475	27	54	0005	630	0018		699									
	095	,	OBS		)49		444	3476		57					692									
			ST		150		442	3477		58	0005		0029		691									
			ST		75		392	3481		67	0004	1439	0041		675									
	095	,	OBS		99		361	3482		71					666									
			ST		00		361	3483		71	0004		0051		666									
			ST		125		354	3483		72	0002	3961	006		667									
	095	•	085		49		351	3483. 3483		72	0003	1020	007		670									
			ST		200		351 352	3485		72	0003		007		670 679									
	095		085		202		352	3484		74	000	1010	009		680									
	095		085		249		358	3485		73					690									
	0,,	•	ST		250	-	358	3485		73	0003	3943	0110		690									
	095	ò	085		298		358	3485		74					698									
			ST		300		1358	3400		74	000	928	0130	) 14	698									
	095	5	085	TO:	199	0	361	3486	4 27	74				14	716									
			ST	0 04	+00		1361	3486	27	74	0004	1014	0170		716									
	095	5	085		+94		1352	3486		75					+728									
			ST		500		352	3486		75	0004	036	0210		729									
	095	9	085		94		352	3466		75	000	. 0.00	0.15		745									
			ST		000		352	3486		775	0004		045		+746									
	0.01	_	ST		700		1353 1353	3487		775 775	0004	+104	029		762									
	09	>	OBS ST		792 300		353	3487		75	0004	. 2 2 2	0334		+779									
			ST	_	900		353	3487		775	0004		037		796									
	09		085		992		352	3487		776	000	,,,,,	0311	-	811									
	0,	,	ST		000		352	3488		176	0004	+326	041		812									
			ST		100		353	3488		776	0004		046		830									
			ST		200		354	3489		776		4455	050		+847									
			ST		300		356	3489		176		4522	025.	2 1	+864									
			ST		400		357	3489		777		4594	029	3 14	1884									
			ST	D 1.	500	(	358	3490	27	777	0004	+659	064		4899									
	09	5	085	T1	526	0	358	3489	7 27	777				14	4904									

Table VII. Observed and interpolated oceanographic data for stations taken by USCGC SEBAGO at Ocean Station BRAVO, 29 June-21 July 1967, prepared from NODC listing No. 31-1092 S5.

REFERENCE		- #	MARSDEN	STATION TIME		ORIGINATO	R°S	DEPTH	MAX. DEPTH		WAVE ERVATIONS	WEA-	CLOUD			ATION	
CTHY ID. CODE LA	TITUDE LON	GITUDE ES	SQUARE	(GMT)	YEAR	CRUISE STAT		BOTTOM	OF S'MPL'S		HGT PER SEA	CODE	TYPE AMI		N	UMBER	
CODE NO.	1/10	1/10 =		MO DAY HR.1.		<del>                                     </del>		2511	-			-	3 8			0001	
311092 55 56	32 N 05	057 W	186 60	06 29 20				3566	14	30	3   3	1	)   5   8	I	1	0001	
			WAT		- SAR		VIS.	NO. OBS.	SPEC								
			COLOR	TRAINS OIR	OR LIMB		VET CODE	OEPTHS	OBSERV	2 NOITA							
			-	,	UNCE		71 7	14									
			_	2213	12   14	5 007 0		<del></del>			1						7.7
MESSENGR CA	ST CARO	QEPTH (m)	1 10	5 %	SIGMA-T	SPECIFIC VOLUME ANOMALY-107	NYN. M	SOL	DOLLA	O2 ml/l	PO4=P µg = 01/1	TOTAL-P ug - ot/l	NO2-N ug - 01/1	NO3-N NO - 01/1	\$1 O4-\$1   µg - at/1	рΗ	C
TIME OF N	O. TYPE	00,111				Allowing Park	x 10 <sup>3</sup>	*****	-		pg - oiii	74		94		_	+1
															ļ		11
	STD	0000	0575	3473	2739	0006937	0000		737								
200	OBS	0000	0575	34732	2739				737								
	STD	0010	0572	3473	2740	0006911	0007		738								
	SID	0020	0568	3473	2740	0006884	0014		738 738								
200	OBS	0024	0567	34732	2740	0006739	0021	_	735								
	STD	0030	0558 0523	3474 34751	2742	0000139	0021		724								
200	OBS	0049	0519	3475	2748	0006194	0034		723								
	STD	0075	0433	3480	2762	0004918	0041		692								
200	OBS	0098	0381	34847	2771	000,,,,,			675								
200	STD	0100	0380	3485	2771	0004065	0059	14	675								
	STD	0125	0365	3484	2772	0003962	0069	9 14	672								
200	OBS	0146	0357	34842	2773				672								
200	STD	0150	0357	3484	2773	0003921	0079		673								
200	OBS	T0196	0357	34845	2773				681								
	STD	0200	0357	3485	2773	0003942	0091		681								
200	OBS	0244	0356	34848	2773	0003030	011		688								
	STD	0250	0356	3485	2773	0003938	011		696								
200	085	0293	0355	34852	2774 2774	0003956	013		697								
200	STD	0300 T0390	Q355 Q354	3485 34853	2774	0002730	0.23		712								
200	OBS		0354	3465	2774	0004024	017		713								
200	STD	0400 0487	0354	34854	2774	300,024	0-11		728								
200	085 STD	0500	0354	3485	2774	0004102	021		730								
200	OBS	0585	0354	34856	2774				744								
200	STD	0600	0353	3466	2774	0004160	046	0 14	1746								
	STD	0700	0351	3486	2774	0004215	030	-	+762								
200	oBs	0780	0350	34857	2774				+775								
	STD	0800	0350	3486	2775	0004266	034		+778								
	STD	0900	0351	3486	2775	0004359	038		+795								
200	085	T0972	0352	34868	2775				+808								
	STD	1000	0352	3487	2775	0004381	043	-	4813								
	STD	1100	0354	3487	2775	0004480			4830 4847								
	STD	1200	0355	3488	2776	0004506		-	4865								
	STD	1300	0357	3488	2776 2776	0004605	056 061		4882								
	STD	1400	0358 0359	3489 34890	2776	0004031	001		4889								
200	OBS	T1439	0359	34070	2110												

REFERENCE	SHIP					E E	MARS	DEN	STAT	ON TI	ME	WE			ATOR'S		OEPT	OEPT		V	VAVE RVATIO		WEA-	Crono			NOOC	
CODE NO.	COOE	LATITU	- 1		SITUOE	DELFT					1.110	YEAR	CRUISE NO.		TATIO		BOTTO	0.0	F L				THER	COOES			NOITATE	
			1/10		17 10		10"		MO C			10/7	-	+		•	25.				GT PER	31 A		TYPE AM	-			1
31 109	2 55	5633	N	051	00 M	-	186		_			1967					356	6 1	5	14	1   2		X1	0 2	1	l	0002	-
							- 1	WAI	T	W	SPEED	BARG	J-	AIR TE		VIS,	NO.		PECIAL									
								COLOR	TRANS.	OIR.	OR FDRCE	M ETS (mbs		ORY	RULE	COD	DEPTH		RVATIC	ON S								
							ŀ			14	510	16	8 0	183	07	3 7	14			$\neg$								
		_					1										1,-		1			_					т —	_
	MESSENG	PLCAST	CAF	10	OEPTH I	m}	r	°C	5	٠/	SIGA	AA-T		C VOLU	M E 07	₹ Δ D DYN. M X 103	. 5	LOCITY	02	m1/L	PO4-		DTA L-P	NO <sub>2</sub> -N	NO3~N	5104-5		Š
	HR 1/10					_									-	X 103					pg - 01		70 - 01/1	ا/۱۵ - ور	yg = o1/l	NB - 01/	'	C
											١				- 1		1.						l					
				TO	000			647	34		27		000	778	1	0000		4766										
	20	3	ОВ	-	000			647		737	27			. 7 . 6	,	0000		4766										
				TO	001			620 595	34		27			745		0008		4757										
	20	2		TD	002			586		74 739	27		000	715	1	0015		4749 4746										
	20	3	08	5 TD	002			577	34		27		0.00	694	9	0022		4743										
	20	3	08		004			538		739	27		000	,,,,	•	0022		4730										
		_		TD	005			533	34			45	000	645	2	0035		4728										
				TO	007		_	429	34		-	63		481		0049		4691										
	20	3	08	s	009	7	0	372	34	344	27	71					1	4671										
			S	TD	010		0	371	34		27			399		0060		4671										
				TD	012			362	34			72	000	393	3	0070		4671										
	20	3	ОВ		014			357		343	27		0.00		,	01100		4672										
	20			TD.	015 7019			357 356	344	348		73 73	000	391	.4	0080		4673 4680										
	20	3	QB c	TD	020			356	341			73	000	391	Ω	0100		4681										
	20	3	ОВ		024			355		350		73	000	,,,,		0.00		4688										
		-		10	025			355	34	-		73	000	392	9	0119		4689										
	20	13	08		029			356		352		73						4696										
			S	TO	030	0	0	356	34	35	27	73	000	396	6	0139	1	4697										
	20	3	08		T038			353		353	27							4711										
				TD	040			353	34			74	000	1401	4	0179		4713										
	20	3	08		048			352		854	27					0 1 3 4		4727										
		_		TD	050			353	34			74	000	3404	6	0219		4729										
	20	3	08		1058			355	34	861	27		0.00	0414		0.760		4745 4747										
				TD TD	060			355 352	34			74 75		)414 )419		0∠60 0302		4762										
	20	13	08		078			350		861		75	000	,417		0 5 0 2		4775										
	20	-		TD	080			350	34			75	000	1425	6	0344		4778										
			_	TD	090			350	34			75		432		0387		4795										
	20	13	08		1097		-	350		865		75						4806										
				TO	100			351	34			75	000	436		043	1	4812										
			S	TD	110	0	0	352	34	87	27	75	000	)446		0475		4829										
				TO	120			354	34			76		)449		0519		4847										
				TD	130			356	34			76		1459		0569		4865										
			_	TD	140			358	34			76	000	)462	.5	0611		4882										
	20	13	08	5	145	9	0	359	34.	893	27	76					1	4893										

REFERENCE					M ARSDEN	STATION TIV	ME	ORIGINATO	R*S	DEPTH DEP		WAVE	WEA-	CLOUD		1.	200	
CTRY ID.	SHIP	LATITU	OE LC	NGITUDE SON	SOUARE	(GMT)	YEAR	CRUISE STAT		10 0	F	SERVATIONS	THER	CODES		N ST	ATION UMBER	
CODE NO.	CODE	•	1/10	1/10 Z	10" 1" /	HE YAG ON	R,1/10	NO. NUN	ABER	BOTTOM S'MI	L'S DIL	HGT PER SEA	-	TYPE AM	-	_		
31109	2 55	5630	N O	5100 W	86 61	07 01 1	50 1967	B26 003		3566 1	4 22	1 2	X4	013	1		00031	
, 31,203	41 02 1				WAT	ER W	IND BAR	O- AIR TEMP.	°C ZIV	NO. S	PECIAL							
					COLOR	TRANS OIR	SPEED MET		LE CODE	OBS. OBSE	RVA TIONS							
					CODE	Im I	FORCE (mb		-+-			1						
						23	513 12	29 110 0	89 7	14								$\neg$
	MESSENGE	CAST	CARD		т *c	s °/	SIGMA-T	SPECIFIC VOLUME	₹ △ D DYN. M	GNUOZ	O <sub>2</sub> ml/		TOTAL-P	NO2-N	NO3-N	SI O4-Si	pН	S
	TIME	약 NO.	TYPE	OEPTH Imi	1 0	3 7	JIGMA-1	ANOMALY-1107	x T03	, AFFOCITA		yg = 01/1	μg - φ1/l	µg - a1/1	μg = o1/1	yg = at/1		C
	HR 1/10	-																
		1	STD	0000	0658	3475	2730	0007838	0000	14773	. '	'						
	15	0	085	0000	0658	34748	2730	000.000		14771								
	15	U	STD	0010	0622	3475	2735	0007401	0008	14758	š							
			STD	0020	0591	3475	2739	0007036	0015	14747	7							
	15	a	OBS	0024	0580	34748	2740			14743								
			STD		0568	3475	2742	0006759	0022									
	15	0	OBS	0047	0529	34766	2748			14727								
			STD	0050	0516	3477	2750	0006033	0035									
			STD		0431	3483	2764	0004687	0048									
	15	0	OBS	0094	0390	34854	2770		0011	14678								
			STO		0389	3486	2770	0004094	0059									
			STD		0384	3486	2771	0004053	000	1468								
	15	0	OBS	0140	0380	34859	2772	0003070	0079									
			STO		0375	3486	2772	0003979	007	1468								
	15	•0	OBS	70187	0366 0368	34853 3486	2773 2773	0003977	0099									
			STC		0371	34859	2773	0003311	•••	1469								
	15	0	08S STE	0233	0371	3486	2773	0004022	0119									
	15	. 0	085	0279	0371	34860	-	•••		1470								
	15	, 0	ST		0368	3486	2773	0004029	0139	1470	3							
	15	50	OBS	T0370	0360	34855	2773			1471	1							
	* -		ST		0360	3486	2773	0004071	0180	1471	6							
	15	50	OBS	0464	0360	34855	2773			1472								
			ST	-	0359	3486	2773	0004147	042									
	15	50	OBS	10556	0357	34855				1474								
			STI		0356	3486	2774	0004200	026.									
			ST		0353	3486	2774	0004251	030	5 1476 1476								
	15	50	OBS	0743	0352	34855		0004309	034									
			STI		0351	3486 3486	2774 2775	0004364										
			STI	0900 T0927	0350	34859		0004504	029	1479								
	1:	50	OBS		0352	3486	2775	0004444	043									
			ST		0354	3487	2775	0004475	048									
			ST		0356	3487	2775	0004582		-								
			ST		0358	3488	2776	0004614			5							
			ST		0360	3489	2776	0004648		7 1488	3							
	15	50	OBS	1416	0360	34895	2777			1488	6							
	•	-	700															

																		_
REFERENCE	SHIP		DCTR 30 DTID	MARSDEN	STATION TIN	VE AO	ORIGINA		DEPTH	MAX. DEPTH	OBSE	WAVE	WEA-	CLOUG			NOOC	
CODE NO.	CODE LATITU	DE LON	GITUDE S	1	MO TOAY HR	YE AR	CRUISE ST.	ATION	BOTTOM	OF S'MPL'S		HGT PER SEA	0000	TYPE AMI	-		NUMBER	
-									2750					1-1-			000	
31/1092	2 55 5631	N   05	056 W	186 60 WAT		69 1967	A ID TERA	P %	3658	35	16	1 4	X6	3 8	ī	1	0004	41
				COLOR	1	SPEED BART	0-	WET COD	NO.	SPEC OBSERV	TIONS							
				CODE	IMANS. OIR.	FORCE Imb		BULB	DEPTHS	OBSERV	110111							
					16	510 03	6 093	080 7	18									
	C								-	UNO		PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO. N	5104-		
	MESSENGR CAST	CARO TYPE	OEPTH (m)	T °C	s */	SIGMA-T	ANDMALY-X10	E S ∆ D OYN. N X 10 <sup>3</sup>	VEL	OCITY	02 ml/l	ug - 01/1	μg - 01/I	μg = αl/l	NO3-N µg - at/l	ug - at		1
	HR 1/10			<del> </del>	-			X 10				+					_	_
				ł		ļ										1	1	
		STD	0000	0674	3469	2723	0008447	0000		776								
	169	085	0000	0674	34694 3470	2723 2729	0007959	0001		764								
		STD	0010	0638 0604	3470	2733	000755			752								
	169	STD OBS	0027	0582	34703	2736	000,33	. 0010		744								
	109	STD	0030	0573	3471	2738	0007148	002		741								
		STD	0050	0517	3473	2746	0006366			722								
	169	085	0054	0507	34731	2748			14	718								
	,	STD	0075	0458	3480	2759	0005198	3 005	1 14	703								
		STD	0100	0415	3485	2767	0004390	006	3 14	689								
	169	085	0109	0403	34865	2770				1686								
		STD	0125	0393	3487	2771	0004084			1684								
		SID	0150	0382	3486	2772	0004004	9008		1684								
	169	085	0164	0377	34864	2772				1684								
		STO	0200	0374	3486	2772	000399	5 010		689								
	169	085	10219	0372	34860	2773	000366	012		+691 +695								
	1.60	STD	0250	0369 0367	3486 34859	2773 2773	0003994	. 012		698								
	169	OBS	0272	0367	3486	2773	0004024	014		702								
	169	085	0324	0366	34858	2773	0004021	0 - 4		706								
	107	STO	0400	0363	3486	2773	000407	018		717								
	169	085	10437	0362	34859	2773				723								
		STD	0500	0360	3486	2774	000412	8 022	5 14	732								
	169	085	0545	0359	34858	2774			14	+739								
		STD	0600	0359	3486	2774	000421	0 026	7 14	749								
	169	085	T0662	0358	34858	2774				4758								
		STD	0700	0358	3486	2774	000426			+765								
		SID	0800	0357	3486	2774	000434	2 035		+781								
	169	085	0873	0356	34862	2774				4793								
		STD	0900	0356	3487	2775	000433		-	4797								
		STD	1000	0355	3488	2776	000434	2 043		4814								
	169	085	T1096	0355	34884	2776	000430	0 048		4830 4831								
		STD	1100	0355	3488	2776	000439			4831 4847								
		STD	1200	0355 0355	3489 3489	2776 2776	000445	-		4864								
		STD	1300 1400	0355	3489	2777	000452			4881								
		STD	1500	0355	3489	2777	000458			4898								
	169	085	71645	0355	34894	2777	300-00	_ 000		4922								
	197	STD	1750	0355	3489	2777	000486	6 078		4940								
		STD	2000	0349	3489	2777	000497			4980								
	201	085	12222	0340	34889	2778				5014								
		STD	2500	0321	3490	2781	000486	8 115	2 1	5054								
	201	085	T2788	0295	34906	2784				5093								
		STD	3000	0284	3492	2786	000449	1 138		5125								
	201	085	T3338	0227	34932	2792			1	5160								
	201	085	T3541	0169	34931	2796				5170								

311092   55   5630 N   05100 W   186   61   07   04   120   1967   1820   100   1576   15   27   31   4   4   4   7   9   00005	REFERENCE				E MAR	SDEN	STATION TI	ME			igina.	TOR'S			MAX.		WAVE		CLOUD			
311092 S5 5630 N   05100 W   186   61   07   04   120   1967   828   005   1576   15   27   3 4	CTRY   IO.   CODE			C	300			D 1/10	TEAK	CRUISE					OF	1		O D D C	1		S1   N	UMBER
Wate										<del>                                     </del>		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-									
	3111092 55	5630 N	051	00 M	186				1967				با		15	27	3 4	X4	X   9	1		0005
										)- <del>                                    </del>			VIS.	NO.								
								OR.					CODE		ORSERV	ATTON 5						
STD   ODG   ODG							27			_			-	1.6								
STD   OUD   O667   3470   2725   OUD0312   OUD   14774   OUD0312   OUD   14774   OUD0312   OUD					1		21	305	09	0 00	1			1 4								
STD   OUD   O667   3470   2725   OUD0312   OUD   14774   OUD0312   OUD   14774   OUD0312   OUD	MESSENGR	CAST CA		DEPTH (m	1 1	°C	5 %.	SIG/	MA-T	SPECIFIC	VOLUM	E ∑ OYI	Δ o.			02 ml/l			NO2-N			на
120		, NO. 1	IPE							ANOMA	LT-ATO	X	103	A S L C	CITY		NO . 01/1	yg = 01/1	μg - ot/!	yg - a1/1	ו/ום - פע	
120																						
STD   0010   0636   3471   2730   0007864   0008   14763	'	' ' <u>'</u>	STD	0000	, ,	667	3470	27	25	0008	312	00	000	14	774		'	,			,	'
STD   0020   0503   3472   2735   0007361   0016   14752   14746   STD   0030   0555   3473   2741   0006851   0023   14738   14716   120   085   0051   0488   34748   2751   0005926   0036   14711   14710   14684   14684   14710   14684   1468	120	0.0	35	0000		667	34700	27	25					14	774							
120			STD	0010		636	3471	27	30	0007	844	0.0	800	14	763							
120							3472															
STO   OSS   OSS   O491   3475   2751   O005926   O036   14711   14710   STO   O075   O414   3479   2763   O004811   O049   14684   STO   O100   O366   3481   2769   O004205   O460   14668   O004205   O460   O4668   O4668	120					586	34730															
120			STD	0030		565	3473	27	41	0006	851	. 00	23	14	738							
STD   O075		5	STO	0050		1491	3475	27	51	0000	926	00	36	14	711							
STD   0100   0366   3481   2769   0004205   0060   14668	120	Q i	38	0051	. (	1488		27	51					14	710							
120		:	STD	0075		0414	3479			0004	811	. 00	)49	14	684							
STD   0125   0365   3483   2771   0004100   0071   14676		;	STD	0100	) (	366	3481	27	69	0004	205	0.0	160	14	668							
STD   0150   0364   3484   2771   0004042   0081   14676   14686   120   085   70205   0368   34851   2772   0004010   0101   14686   120   085   0255   0373   3486   2773   0004030   0121   14696   14697   14697   14697   14697   14697   14697   14697   14697   14697   14697   14697   14697   14697   14704	120					-																
120																						
STO   O200   O368   3485   2772   O004010   O101   14686   14687										0004	042	00	180									
120	120																					
STO   O250   O373   3486   2772   O004030   O121   14696     120   OBS   O255   O373   34864   2773   O004031   O141   14703     120   OBS   O306   O368   34860   2773   O004031   O141   14704     STO   O400   O359   3485   2773   O004063   O182   14715     120   OBS   T0405   O358   34854   2773   O004063   O182   14716     STO   O500   O357   3486   2774   O004112   O223   14731     120   OBS   O508   O357   3485   2774   O004174   O264   14748     120   OBS   T0612   O357     STO   O700   O358   3486   2774   O004174   O264   14748     120   OBS   T0612   O357     STO   O700   O358   3486   2774   O004268   O306   14765     STO   O800   O357   3486   2774   O004364   O349   14782     120   OBS   O814   O359   34862   2774     STO   O900   O357   3487   2775   O004364   O393   14798     STO   1000   O354   3487   2775   O004493   O25   14813     120   OBS   T1020   O353   34872   2775     STO   1100   O354   3488   2776   O004493   O25   14847     STO   1200   O355   3489   2777   O004451   O770   14864     STO   1400   O356   3489   2777   O004461   O616   14881     STO   1500   O357   3489   2777   O004601   O616   14881     STO   1500   O357   O357   O004691   O662   14899										0004	010	0.	101									
120	120																					
STO   0300   0369   3486   2773   0004031   0141   14703	120									0004	•030	υ.	7 \ 7									
120	120									000	021	0.	1 ( 1									
STO 0400 0359 3485 2773 0004063 0182 14715   14716	120									000.	1031		141									
120	120									0004	.063	0	182									
STD   0500   0357   3486   2774   0004112   0423   14731   14732   14732   1	120									000	,005		-02									
120	120									0004	112	0.4	223									
STD   0600   0357   3486   2774   0004174   0264   14748	120																					
120										0004	174	0.	264									
STD   0700   0358   3486   2774   0004268   0306   14765   2774   0004268   0349   14782   120   085   0814   0359   34862   2774   0004364   0349   14782   14782   14784   14782   14784   14782   14784   14782   14784   14798	120					357																
120						358	3486	. 27	74	0004	268	0.	106	14	765							
STO 0900 0357 3487 2775 0004346 0393 14798 STO 1000 0354 3487 2775 0004395 0437 14813  120 085 T1020 0353 34872 2775			STD	0800	(	359	3486	27	74	0004	364	0.	349	14	782							
STO   1000   0354   3487   2775   0004395   0437   14813   120   085   T1020   0353   34872   2775   14816	120	01	35	0814	. (	359	34852	27	74					14	784							
120 085 T1020 0353 34872 2775 14816 ST0 1100 0354 3488 2776 0004403 0481 14830 ST0 1200 0354 3488 2776 0004493 0>25 14847 STD 1300 0355 3489 2777 0004511 0>70 14864 STD 1400 0356 3489 2777 0004601 0616 14881 STD 1500 0357 3489 2776 0004691 0662 14899		:	STO										393	14	798							
\$T0 1100 0354 3488 2776 0004403 0481 14830 \$T0 1200 0354 3488 2776 0004493 0225 14847 \$TD 1300 0355 3489 2777 0004511 0270 14864 \$TD 1400 0356 3489 2777 0004601 0616 14881 \$TD 1500 0357 3489 2776 0004691 0662 14899				_						0004	1395	04	+37		-							
STD 1200 0354 3488 2776 0004493 0225 14847 STD 1300 0355 3489 2777 0004511 0270 14884 STD 1400 0356 3489 2777 0004601 0616 14881 STD 1500 0357 3489 2776 0004691 0662 14899	120																					
STD 1300 0355 3489 2777 0004511 0570 14864 STD 1400 0356 3489 2777 0004601 0616 14881 STD 1500 0357 3489 2776 0004691 0662 14899																						
STD 1400 0356 3489 2777 0004601 0616 14881 STD 1500 0357 3489 2776 0004691 0662 14899																						
STD 1500 0357 3489 2776 0004691 0662 14899																						
120 OBS 11520 0357 34895 2777 14902										0004	+691	. 00	662									
	120	) 01	BS	11520	) (	1357	34895	27	77					14	902							

CE	SHIP			ONGITUDE SOUTIDINO.	MARSDEN SOUARE	STATION TH		ORIGINAT		OEPTH DEPT	H OF	WAVE SERVATIONS	WEA- THER	CLOUG			HODE	
D. 10.	CODE	LATITUE	1/10	ONGITUDE SOUTIONO.	10° 1°	MO DAY HE	YEAR		TION MBER	TO OF	0.	HGT PER SE	0000	TYPE AM1	-	N N	UMRER	
_								+			1							
192	S5	5634	NIO	05102 W	186 61		23 1967	A ID TEAAD		3500 15		2 4	X1	3 3 5	1	ı	0006	
					COLOR	TRANS. DIR.	SPEED MET	ER DRY	VIS.	OBS. DESER	ECIAL VATIONS							
					CODE	(m) DIK.	FORCE (mb	s) BULB 6	INT.8	DEPTHS								
						35	S12 12	26 067 (	051 7	14								
	MESSENGR	CAST	CARD	DEPTH (m)	T *C	s ·/	SIGMA-T	SPECIFIC VOLUME	₹ ∆ D OYN, M.	SOUND	O2 ml/l	PO4-P	TOTAL-P	NO2-N	NO3-N	SI O4-Si	рΗ	S
	TIME 0	NO.	TYPE	DEFIN ON	1 ' "	1	3IGMA-I	ANOMALY-X107	x 163	VELOCITY	0,,,,,,,,	μg = 01/I	μg = et/t	иg - el/I	yg - at/l	yg - a1/1	pre	č
																		$\prod$
			STO	0000	0686	3473	2724	0008371	0000	14781				•				
	123	3	085	0000	0686	34725	2724			14781								
			STO		0627	3473	2732	0007627	0008	14760								
	123	3	OBS	0018	0591	34726	2737			14747								
			STE		0589	3473	2737	0007146	0015	14746								
	122		STO	0030	0575 0538	3474 34764	2740 2746	0006917	0022	14742								
	123	,	OBS STC		0528	3477	2748	0006170	0036	14727								
			STO		0423	3481	2763	0004754	0049	14688								
	123		OBS	0097	0366	34832	2771	000		14668								
			STO		0365	3483	2771	0004023	0060	14668								
			STO		0361	3484	2772	0003953	0070	14671								
	123	3	OBS	0145	0359	34846	2773			14673								
			ST		0359	3485	2773	0003911	0080	14674								
	123	3	OBS	T0197	0357	34848	2773			14681								
			STO		0357	3485	2773	0003920	0100	14681								
	123	3	OBS	0243	0356	34850	2773	0003030	0110	14688								
	122	,	STO	0250 0291	0356 0357	3485 34853	2773 2773	0003939	0119	14689								
	123	,	OBS		0357	3485	2773	0003969	0139	14698								
	123		085	T0388	0357	34852	2773	0005707	0237	14712								
	14.	•	STO		0359	3485	2773	0004083	0179	14715								
	123	3	OBS	0485	0365	34853	2773			14732								
			STO		0363	3485	2773	0004197	0421	14734								
	123	3	OBS	T0586	0356	34857	2774			14745								
			STO	0600	0356	3486	2774	0004163	0262	14747								
			STO		0355	3486	2774	0004236	0304	14763								
	123	3	OBS	0779	0354	34861	2774			14776								
			ST		0354	3486	2775	0004291	0347	14780								
			STE		0353	3487	2775	0004325	0390	14796								
	123	5	OBS STO	T0969	0352 0352	34870 3487	2775 2775	0004372	0434	14807 14813								
			STO		0352	3488	2776	0004372	0478	14830								
			STO		0354	3488	2776	0004491	0522	14847								
			ST	_	0355	3489	2776	0004546	0567	14864								
			STO		0356	3489	2776	0004608	0613	14881								
			STE		0357	3489	2777	0004665	0660	14899								
	123	3	OBS	T1502	0357	34894	2777			14899								

REFERENCE	SNIP			±	MAR	SDEN	STATION TI			Off	HGINA!	OR'S	DEPT	H MAI		WA	VE	WEA-	CLOUD			NOOC	1
CTRY ID.	CODE	LATITU	0E   U	ONGITUDE	20 son		MO DAY N		YEAR	CRUISE NO.		MBER	ROTTO	0.5	00		ATIONS	THER	COOES			MOITATE	
	-											HIGEN	-			_	PER SE	<del>^</del>	TIPE AM	1			-
1 311109	2 55	5630	NIC	5101 W	186	61 WA		105 1	967		007	- T	363	0 16	29	2	4	X1	66	1	- 1	0007	1
						COLOR		SPEED	METE	)* <u> </u>		VIS	NO.	SP	ECIAL								
						CODE	Im) OIR.	FORCE	(mba			BULB COC	DEPT		VATIONS	1							
							29	\$20	18	9 09	3	071 7	14			1							
								T .	1				1			<del>'</del>			_			т—	
		및 NO.	CARD	DEPTH In	T	°C	s */	SIGM	A-T	SPECIFIC Y		UTN. A	۸. ا را ا	OUND	O2 ml/		O4-P g - ot/l	TOTAL-P	NO3-N	NO3-N pg = ot/I	SI O4-S		5
	HR 1/10	+			+		-	-	$\rightarrow$			x 10 <sup>3</sup>	+			<u> </u>			24 - 0171	pg = 01/1	pg - 017	<u> </u>	C
	1											1	Ι,		l		1			1			-
		_	STO			703	3472	272		9008	3661	000		4788									
	20	>	085	0000		703	34716	272						4788									
			STO			683	3472 3472	272		0008		000		4782									
	20	5	085	0028		629	34724	272		0008	1052	001		4773 4763									
	20	,	STE			618	3473	273		0007	7515	002		4759									
			STO			523	3475	274		0006		003		4725									
	20	5	OBS	0054		507	34755	274		••••				4719									
			STE	0075	0	444	3478	275	9	0005	199	005	3 1	4696									
			STO			389	3481	276	7	0004	432	006	5 1	4678									
	20	5	085	0109	0	375	34815	276	9				1	4674									
			\$TC			366	3482	277		0004				4672									
		_	STO	-		356	3482	277		0004	077	008		4672									
	20	5	OBS	0163		353	34824	277						4673									
	2.0		STO		-	356	3483	277		0004	045	010		4681									
	20	7	OBS STE	0219 0250	-	357 356	34838 3484	277		0004	017	012		4684									
	20	5	085	0273		356	34847	277		0004	.017	0120		4689 4693									
	20	,	STO	-		358	3485	277		0004	.002	0144		4698									
	20	5	085	0328		360	34858	277		900	.002	0-4		4704									
		-	STO			357	3486	277		0003	973	018		4715									
	20	5	085	T0440	0	356	34868	277	15					4721									
			STO	0500	0	357	3487	277	75	0004	017	022	5 1	4731									
	20	5	085	0544		357	34870	277						4739									
			STO	-		357	3487	277		0004	084	026		4748									
	20	5	085	10653	-	357	34873	277						4757									
			STO		-	355	3487	277		0004		030		4764									
	20	6	STO	0800 0866		353	3487	277		0004	+216	034		4779									
	20	2	085 ST0			352	34870 3487	277		0004	280	039		4790 4796									
			STO			353	3487	277		0004		043		4813									
	20	5	085	T1066		353	34874	277		0004	. , 02	U+3.		4824									
			STO			353	3488	277		0004	435	047		4830									
			STO			354	3488	277		0004		052		4847									
			STO			354	3488	277	-	0004		056		4864									
			STE	1400	0	355	3489	277		0004		061		4881									
			STO	1500	0	355	3489	277	16	0004	668	066		4898									
	20	5	085	T1607	0	356	34892	277	17				1	4916									

REFERENCE	SHIP				# MAR	SDEN	STATION TI			ORIGI	NATOR	r*S	DEPTH	MAX, DEPTH	-	WAVE	WEA-	CLDUD		1	NODC	
	CODE	ATITUDE		GITUDE	SOU		IGMTI		/EAR	CRUISE NO.	STATI		TO BOTTOM	OF		SERVATIONS	0000	CODES	1		L MBER	
COST NO.		1/10	+	1710	10	1	MD DAY H			NO.	NUM	BER		2,W br.	DIR.	HGT PER S	EA	TYPE AM	T	- 1		
31 1092	\$5   56	5298N	05	055 W	186		07 07 2		967		08		3630	15	33	2 4	X1	0 6		İ	0008	
						WA1		SPEED	BARO		EMP.	VIS.	ND. DBS.	SPE	CIAL							
						COLDR	TRANS. DIR.	OR	METE!		BU BU	LB CODE	DEPTHS	OBSERV	2 NOITA							
							30	506	17		0.	72 7	14									
F*							130	500		- 071	1									T		_
N	MESSENGR C		ARD PE	DEPTH (m	1 7	℃	5 */	SIGMA	A-T	SPECIFIC VOI	LUME	₹ △ D DYN. M. x 10 <sup>3</sup>	501	JND	O2 mi/	PD4-P	TOTA L-P	ND2-N	ND3-N	SI O4-Si	pН	S
1	NR 1/10		1FE							A110/MAE/		x 10 <sup>3</sup>	VELL	JUIT		µg • a1/1	μg - el/l	1\10 - QU	μg - σ1/I	µg - a1/l		C
														- 1					}			
			STO	0000	0	765	3471	271		00095	24	0000	14	812								
	205	01		0000		1765	34713	271						812								
			STD	0010		730	3472	271		00090		0009		800								
			STD	0020		692	3472	272		00085	26	0018		787								
	205		35	0024		675	34720	272		00070	<b>6</b> 2	0024		781								
			STD	0030		1645	3473 3477	273 274		00078		0026		770								
	205		5TD 3S	0050		1553	34766	274		00064	89	0041		737								
	205		STD	0075		)446	3482	276		00049	20	0055		698								
	205		BS	0099		381	34846	277		00047	20	00))		675								
	200		STD	0100		381	3485	277		00040	82	0066		675								
			STD	0125		371	3485	277		00040		0076		675								
	205		35	0149	C	365	34845	277			• -			676								
			STD	0150		365	3485	277		00039	77	0086		676								
			STD	0200	C	361	3485	277	2	00039	82	0106	14	683								
	205	0.	35	0200		361	34845	277					14	683								
			STD	0250		362	3485	277		00039	98	0126		692								
	205		BS	0251		362	34853	277						692								
			STD	0300		358	3485	277		00039	88	0146		698								
	205		BS	0301		358	34852	277						698								
	205		BS	T0398		358	34864	277		00010	2 5	0101		715								
			STD	0400		358	3486	277		00040		0186		715								
	205		STD BS	0500		355	3486 34859	277		00040	69	0226		730								
	203		STD	0600		354	3486	277		00041	42	0267		746								
	205		85	T0606		354	34862	277		30041	72	0207		747								
			STD	0700		353	3486	277		00041	80	0309		763								
			STD	0800		351	3487	277		00042		0351		779								
	205		BS	0805		351	34866	277						779								
			STD	0900		352	3487	277		00042	81	0394		795								
			STD	1000		352	3488	277		00043	24	0437		812								
	205		BS	11003		352	34877	277						813								
			STD	1100		353	3488	277		00043		0480		830								
			STD	1200		353	3489	277		00044		0524		847								
			STD	1300		354	3489	277		00044		0569		864								
			STD	1400		355	3489	277		00045		0614		881								
	206		STD	1500		356	3489	277		00046	91	0661		898								
	205	0	BS	T1510		356	34895	277	1				14	900								

REFERENCE	SNIP				MARSDEN	STATION TIN		ORIGINATI		DEPTH   CI	MAX.	WAVE	W EA-	Cronp			NDDC	
CODE NO.	CODE	LATITUO	1/10	NGITUDE NGITUDE	1	MO DAY HR	YEAR		TIDN	2077011	OF MPL'S DIR	HGT PER SE	THER				TATION	
-	2 5 5	5631										1			<u>'</u>			
31 109	2 55	5631	כטן אכ	052 W	186 60 WAT		03 1967	A 10 75 44 0	*c	3630 NO.	14 34	2 4  	X1	8 6	1	ı	0009	
					CDLDR	TRANS. DIR	SPEED MET	ER DRY V	VET COD	OBS- DB	SPECIAL							
					CDOE	(m)	FORCE [mb	a) BULB 8	ULB	DEPTHS								
						29	510 13	4 083 (	068 7	14								
	MESSENGE		CARD	DEPTH (m)	r tc	5 %.	SIGMA-T	SPECIFIC VOLUME	₹ A D DYN. M	SOUNO		PO4-P	TOTAL-P	NO2-N	NO3-N	SI D4~S	pH	S
	HR 1/10		TYPE			,	JIOMA-1	ANOMALY-X107	x 103	VELDCIT	TY James	yg = ot/1	, µg + o1/1	ا/10 - وبر	yg - a1/1	yg - at/	PFF	CC
							,											$\prod$
	•		STD	0000	0775	3474	2713	0009477	0000									
	20	3	085	0000	0775	34738	2713			1481								
			STD	0010	0728	3473	2719	0008900	0009									
	20	3	ST0 085	0020	0681 0667	3472 34722	2725 2727	0008345	0018	1478								
	20	_	STO	0030	0633	3473	2731	0007731	0026									
	20	3	085	0047	0555	34735	2742		***	1473								
			STO	0050	0538	3474	2745	0006509	0040	1473	31							
			STO	0075	0427	3481	2763	0004795	0054	1469	0							
	20	3	085	0094	0375	34842	2771			1467								
			STD	0100	0374	3484	2771	0004043	0065									
	20	2	STD OBS	0125 0142	0370 0368	3484 34845	2771 2772	0004011	0075	1467 1467								
	20	2	510	0150	0367	3485	2772	0003989	0085									
	20	3	OBS	10188	0363	34849	2773	0003703	0002	1468								
			STO	0200	0361	3485	2773	0003952	0105									
	20	3	085	0236	0358	34848	2773			1468	38							
			STD	0250	0357	3485	2773	0003963	0125									
	20	3	085	0284	0356	34847	2773			1469								
	20	2	STO	0300	0357 0358	3485 34852	2773	0003992	0145									
	20	2	08S STD	T0372	0357	3485	2773 2773	0004055	0185	1471								
	20	3	085	0468	0355	34854	2774	0004055	0163	1472								
		_	STD	0500	0356	3486	2774	0004115	0426									
	20	3	085	T0563	0357	34858	2774			1474	_							
			STD	0600	0356	3486	2774	0004163	0267									
			STD	0700	0353	3486	2774	0004214	0309									
	20	3	OBS	0742	0352	34862	2775			1476								
			STO	0080	0352	3487	2775	0004209	0351		-							
	20	2	ST0 08S	0900 T0928	0351	3487 34872	2775 2776	0004285	0394	1479 1480								
	20	2	STD	1000	0352	3487	2776	0004347	0437	-								
			510	1100	0353	3488	2776	0004415	0481									
			STO	1200	0355	3488	2776	0004492	0525									
			STD	1300	0356	3488	2776	0004568	0571	1486	55							
			STD	1400	0358	3489	2776	0004644	0617									
	20	3	OBS	T1421	0358	34888	2776			1488	36							

REFERENCE SHIP			MARSDEN	STATION TIA		ORIGINATO	OR'S	DEPTH MAN		WEA	Crono			NDDC	
CODE NO. CODE LATITU	1/10 LON	GITUOL NO.	SQUARE 10° 1°	(GMT)	YEAR	CRUISE STA		SOTION STOR	003567771101	0000	TYPE AMI		S N	TATION	
		77.0									6 2			0010	
31 1092  55   5634	N   05	101 W	186 61 WAT		03 1967	T A ID TEAAD		3658 15		X1	1 012	ı	1	0010	
			COLOR	TRANS DIR	SPEED MET	0-	VIS.	OBS.   OBEED	ECIAL VATIONS						
			CODE	tm1	PORCE (mb	eule B	ULB	OEPTHS OBSER							
				27	503 17	2 094 0	78 7	14							_
MESSENGR CAST	CARO	DEPTH (m)	T *C	s */	SIGMA-T	SPECIFIC VOLUME	₹ ∆ 0 DYN. M.	SOUNG	O2 ml/l PO4-1	TOTA L-P	NO2-N	NO3-N	SI O4-50	ρН	S
HR 1/10	TYPE	OETH MIL	' '	, ""	SIGMA-I	ANOMALY-X197	X 103	VELOCITY	μg - al/	pg - pi/l	yg - at/l	μg - α₹/I	μg - α1/l	gri	č
															П
'	STO	0000	0749	3469	2713	0009474	0000	14806	'	,					
203	065	0000	0749	34690	2713			14806							
	STD	0010	0711	3473	2721	0008680	0009	14793							
300	STD	0020	0668	3475	2729	0007982	0017	14778							
203	06S STD	0025	0644	34760 3476	2733 2737	0007214	0025	14769 14758							
	STD	0050	0506	3477	2751	0005935	0038	14718							
203	085	0051	0501	34768	2751	0003733	0030	14716							
	STD	0075	0417	3480	2763	0004767	0052								
	STD	0100	0362	3482	2770	0004091	0063	14667							
203	085	0101	0361	34824	2771			14666							
	STD	0125	0361	3483	2771	0004028	0073	14670							
203	STD OBS	0150 0152	0361 0361	3484 34843	2772 2772	0003975	0083	14675							
203	510	0200	0361	3486	2773	0003884	0102	14683							
203	085	T0203	0361	34859	2774			14684							
	STD	0250	0361	3486	2773	0003943	0122								
203	OBS	0254	0361	34856	2773			14692							
3.00	STO	0300	0360	3486	2773	0003985	0142	14699							
203	OBS STD	0305 0400	0360 0358	34855 3486	2773 2774	0004014	0182	14700							
203	085	0406	0358	34863	2774	0004014	0102	14716							
203	510	0500	0355	3486	2774	0004047	0222	14730							
203	OBS	0507	0355	34863	2774			14731							
	STO	0600	0355	3486	2774	0004145	0263								
203	085	T0615	0355	34860	2774		- 10-	14749							
	SID	0700	0355	3486	2774	0004217	0305								
203	STD	0800 0812	0354 0354	3486 34864	2775 2775	0004280	0347	14780							
203	OBS STD	0900	0354	3487	2775	0004317	0390	14797							
	STO	1000	0354	3488	2776	0004355	0434	14813							
203	085	T1018	0354	34877	2776			14816							
	STD	1100	0354	3488	2776	0004411	0478	14830							
	STD	1200	0355	3489	2777	0004423	0522								
	STO	1300	0355	3489	2777	0004509	0566	14864							
	STD	1400	0356	3489	2777	0004595	0612	14881							
702	STD	1500 T1523	0356 0356	3489 34892	2777 2777	0004680	0658	14898							
203	OBS	17723	0550	34072	2111			47702							

REFER	ENCE	SHIP				E 5	MARS	DEN	STATION	TIM					ATOR'S		DEPT	P D	AAX, EPTH	0011	WAVE RVATION		WEA-	CLOUD			NODC	
CODE	ID.	CODE	LATITU		LONGITURE	DRIFT	sou		IG A			YEAR	CRUISE ND.		TATION		TO BOTTO		DF				THER	CODES			TATION	
CODE	NU.	<del>  </del>		1/10	'1/10	1	10*		MD DAY				1					13 /	M PL*S	DIR	HGT PER	SEA		TYPE A.M	1 -			-
31	1092	2 55	5633	N I	05048 W		186			2		967					374	9	15	16	4 3		X2	6 8	1		0011	
							ļ	WA1		WI	SPEED	BARG	>- <b>├</b>		MP. °C	VIS.	NO.		SPECIA	AL.								
								COLOR	C 2MAST	IR.	OR	(mba		ULB	WET BULR	CODE	DEPT	HS D8	SERVAT	IDNS								
							- 1		<del>                                     </del>	$\overline{}$		+	_	89	_	3 7	14			$\dashv$								
							$\perp$		<u> </u>	6	518	14	0	0.7			-											_
		MESSENGE		CARD	DEPTH	(m)	T	tc	5 %	.	SIGM	A-T	SPECIFIC	VOLU	ME E	E A D	.   .:	SOUND		2 ml/l	PO4-1		OTA L-P	NO2-N	ND3~N	SI D4-Si		5
		NR 1/10	P NU.	TYPE									Anom	ALICA		x 10 <sup>3</sup>	_ v	ELDCIT	T		yg - at	" "	g - a1/1	/ID - 94	yg = at/1	yg - 01/1	,	c
												Ì																Т
		1	, ,	ST	ວ່ ວວວ	ا ۵	် ၀	756	3476	, '	271	۱7 ٔ	000	906	4 (	0000	, 'a	480	9		'	·						
		21	0	085	000	0	0	756	3475	8	271						1	480	19									
				ST				715	3476		272			852		0009		479										
				51				666	3476		273		000	789	0 (	0017		477										
		21	0	085	002			639	3475		273							476										
				ST			-	598	3476		273			704		0024		475										
			_	ST				470	3479		275		000	1537	4 (	)V37		470										
		21	O	085	005			465 429	3479 3485		275		000	451		0049		470										
				ST				398	3487		276			407	-	0049		468										
		21	0	085	010		-	397	3487		277		000	107	,	,000		468										
			•	ST				374	3485		277		000	400	6 (	070		467										
				ST				356	3484		277			394		0080		467										
		21	0	085				357	3483		277							467										
			•	ST				355	3484		277		000	396	2 (	0100		468										
		21	0	085	T020	5	0	355	3464	5	277	73					1	468	1									
				ST	0 025	0	0	363	3486		277	73	000	397	4 (	0120	1	469	2									
		21	0	085	025	4	0	364	3485	6	277	73					1	1469	3									
				5.1	D 030	0	0	359	3485		277		000	399	3 (	0140		469										
		21	0	085	030			359	3485		277							469										
				ST				357	3485		277		000	407	9 (	0180		1471										
		21	0	085	T040			357	3484		277							471										
		2.		ST				358	3486		277		000	1412	9 (	2221		473										
		21	U	085	050			358	3465		277		000					473										
		2.2	0	ST			-	356	3485 3485		277		000	1420	7 (	0263		474										
		21	U	085 ST				356 355	3486		277		000	426	7 (	305		476										
				ST				354	3486		277			431		3348		478										
		21	0	085	080			354	3485		277		000					478										
			-	ST				353	3486	-	27		000	438	1	291		479										
				ST				352	3486		277			445		0436		481										
		21	0	OBS	100			352	3486	2	277							1481										
				ST	D 110	0	0	353	3487	,	277	75		449		0840		1482										
				ST	0 120	10	0	354	3487	•	277	75	000	455	4 (	0526		1484										
				ST				355	3488		277			461		0571		486										
				ST			_	356	3488		277			466		0618		488										
				ST				357	3489		277		000	472	2 (	0665		489										
		21	0	085	T150	15	0	357	3488	6	277	76					1	490	10									

																_				,			
REFERENCE			-	≅ MAR	SDEN	STATION TH			ORN	SINAT	OR*S		DEPTH	MAX. DEPTH	001	WAV		WEA-	CLOUD		1,	ODC	
CTRY ID. CODE	LATITUDE	LONG	STUDE S	sau		(GMT)		EAR	CRUISE NO.		TION		TO BOTTOM	OF S'MPL'S			ER SEA	U CODE	TYPE A MI	-		UMBER	
CODE NO.	1/10		1/10	= 10*	1.	MO DAY HE					MIDEN	+											
311092 55	5630 N	051	03 W	186				967		112			3566	15	16	151	3	X5	7 8	i		0012	
					WA	1 1	IND	BARD	-	TEMP.	. °C	vis.	NO.	SPE	CIAL								
					COLOR	TRANS, DIR.	SPEED	M ETE			WET C	VIS.	OBS. OEPTHS	OBSERV	ATIONS								
						1	FORCE			-		_											
						09	521	04	5 08	4   1		6	14	L									$\neg$
MESSENGIL		ARD	DEPTH (m	,   ,	°C	s */	SIGMA	T_1	SPECIFIC V	OLUME	∑ Z DYN	1. M.		מאנ	O2 ml/			TOTAL-P	NO2-N	NO3-N	\$1 D 4-51	ρH	Š.
TIME OF	NO. 11	YPE	00,,,,			1			ANOMALI	-X10'	Х	103	VEL	DCITY		N8	* 01/1	1\10 • gu	μg - ot/l	yg - at/1	µg = o1/l		C
'	' '	5T0	0000	, 0	743	3473	271	7 '	0009	065	00	00	14	804		,							
207			0000		743	34734	271							804									
201		STD	0010		722	3474	272		0008	754	00	109		797									
		STD	0020		689	3474	272	5	0008	330	00	17	14	786									
207	0.6	BS	0025		668	34747	272							779									
	5	STD	0030		633	3475	273		0007			25		766									
		STD	0050		)514	3477	275		0006	010	00	39		721									
207		BS	0051		1509	34771	275		0001	7.0	0.0	152		719									
		STD	0075		1422	3481	276		0004		-	63		688									
207		STD	0100		366	3484 34845	277		0003	900	00	03		668									
207		BS STD	0101		367	3485	277		0003	940	0.0	73		673									
		STD	0150		370	3485	277		0003			83		679									
207		85	0153		370	34855	277		0002			-		679									
201		STD	0200		360	3485	277		0003	923	0.1	03		683									
207		85	T0202		360	34852	277						14	683									
	;	STD	0250		357	3485	277	4	0003	921	0.1	22	1.4	690									
207	01	85	0255		357	34854	277							691									
	;	STD	0300		356	3486	277		0003	945	01	42		698									
207		85	0306		356	34855	277							699									
		STD	0400		355	3487	277	-	0003	938	0.1	182		714									
207		85	10410		0355	34867	277	-	0001	0.10		, , ,		715									
		STD	0500		0357	3487	277		0004	020	04	221		731									
207		85 STD	0507		0357 0360	34869 3488	277		0004	055	0.	262		749									
207		BS	T0608		0360	34882	277		0004	9,7,3	0.	-02		751									
201		STD	0700		0357	3488	277		0004	100	0.	303		765									
		STD	0800		0353	3488	277		0004			544		1780									
207		85	0809	)	0353	34880	277	16					14	781									
		STD	0900	) (	0354	3488	277	76	0004	230	0:	386	14	+796									
		STD	1000	) (	0354	3468	277	16	0004	303	04	+28	1 14	1813									
207	7 0	85	1008	3 1	0354	34883	277	76						815									
		STD	1100		0354	3489	277		0004		-	472		+830									
		STD	1200		0355	3489	277		0004		-	15		847									
		STD	1300		0355	3489	277		0004			960		+864									
		ST0	1400		0356		277		0004	523	06	505		881									
201	7 0	85	T1496		0356	34907	277	78					14	+898									

ICE	PIHZ				E #	MARS	SDEN	STATION T			DRIG	INATO	DR*S	DEPTH	MAX		WAVE	WEA	- CLO	מנ		NODC	
ID.	CODE	LATITUD		.DNGITUDE	PARE	sou		IGMT)		YEAR	CRUISE ND.	STAT		SDTTD A	. DF	1 00	SERVATION	CDD				NOTATION	
			1/10	1/10	1	10"		MD DAY N					VIBER		S'MPL	S DIR	HGT PER	SEA	1177				
092	S5	5631	N   0	5103 W	1 1	186	61 WAT		216   I	967		113		3658	14	05	5 4	X2	7	8		0013	
									SPEED	- BARO METE	* -	TEMP.	VIS.	NO. OBS.		CIAL							
							CODE	TRANS. DIR.	FORCE	(mbs)			ULB COD	DEPTHS	DBSER	Z NOIT AV							
								03	\$22	136	5 084	. 0	78 7	14									
	MESSENGR								1			1 .		1 -	L			1	1				
	TIME	CAST	CARD	DEPTH	(m)	τ	°C	s */	SIGM	A~T	ANOMALY-	LUME -X107	₹ △ D	- SO	DCITY	D2 m1/	PO4-P	TQTA L-					S
	HR 1/10								+				x 10 <sup>3</sup>				pg - 0//1	yg - a1/1	na - as	/I pg - ol.	/I µg - 01/	'	19
								1	1	_			1				1		1				
	21.		STO				741	3475	271		00089	148	0000		803								
	216	)	OBS	000			741	34746	271		00000		0.100		803								
			STO				740 739	3475 3475	27:		00089		0009		804								
	216		085	002			738	34754	271		00089	777	0018		806								
	210		STO				697	3475	27		00083	377	0027		791								
			STO				559	3475	274		00066		0042		739								
	216	5	OBS	005			559	34748	274		00000	,,,	00 42		739								
			STO				458	3480	279		00051	98	0056		703								
			STO				392	3484	276		00042		0068		679								
	216	5	OBS	010	0	0	392	34835	276						679								
			STO	012	5	0	376	3484	277	71	00041	01	0079	14	677								
			STO	015	0	0	366	3485	277	12	00039	79	0089	14	677								
	216	5	OBS	015	0	0	366	34846	277	12				14	677								
			STO				361	3485	277	13	00039	45	0109	14	683								
	216		OBS	T020			361	34854	277						683								
	216	)	085	024			356	34856	277						689								
	21/		STO				356	3486	277		00038	193	0158		689								
	216	)	OBS STO	029			355 355	34854	277		00030		0140		696								
	216		OBS	038			352	3485 34854	277		00039	41	0148		710								
		,	STO				352	3485	277		00039	999	0188		712								
	216	,	OBS	047			354	34854	277		5005	,,	0100		725								
			STD				354	3486	277		00040	57	0428		730								
	216	,	OBS	1056	2		354	34866	277						740								
			STO	060	0	0	354	3487	277	15	00040	78	0268	14	746								
			STD				353	3487	277		00041	05	0309	14	763								
	216		OBS	074			352	34877	277	16					769								
			STO				352	3488	277		00041		0351		779								
	2.		STO				351	3488	277		00042	33	0393		795								
	216	)	OBS	093			351	34877	277	-					800								
			STO				352	3488	277		00043	-	0435		812								
			STO				353	3488	277		00044		0479		830								
			STO				355 356	3488 3488	277		00044		0523		847								
			STO				358	3488	277		00045		0569 0615		865								
	216	,	OBS	T141			358	34880	277		VUU+0	71	0015		882								
	210		555	1141		-	550	74000	611	J				14	885								

REFERENCE SHIP		E E M	ARSOEN DUARE	STATION TH			DRIGIN	ATOR'S		DEPTH	MAX. DEPTH		WAVE SERVATION	WE	CLDU			SGON	
CTRY ID. CODE LATIT	1/10	NGITUDE S		(GMT)	YEA			TATION		DT M	DF S'MPL"			CDS			N 21	UMBER	
		1710																	
31 1092  S5   563.	2 N   05	055 W   1	96 60		19 196		B 26 014			3658	15	06	6 4	l X	2   7   8	3	ļ	0014	
			COLOR		SPEED A	AETER	DRY	WET	VIS.	ND. OBS.	DBZERV	CIAL							
			CODE			(mbs)	BULB	BULB	CODA	DEPTHS	DOSEKA	AIIUNS							
				07	508	154	094	083	7	14									
MESSENGR CAST						$\overline{}$	1	5	∧ D	SOU			200. 0	T		1	S1 04-S1		75
TIME OF NO.	CARD	DEPTH (m)	T *C	s */	SIGMA-	·τ [],	PECIFIC VOLUM	OY	△ D. N. M. 10 <sup>3</sup>	VELD		D 2 ml/	PD4-P	TOTAL-				pН	C
HR 1/10	-	-						<del>- -</del> ^	10-		-		+	-	+	1.1	-		+
				1				_		1				1		1	1	l	11
2.5	STD	0000	0716	3467	2715	(	000920	7 00	100		792 792								
219	OBS STD	0000	0716	34666 3467	2715 2718		000900	7 00	009		789								
	STD	0020	0688	3468	2720		000876		018		765								
219	OBS	0025	0681	34682	2722				- 10		783								
2.47	STD	0030	0629	3469	2729		000795	0 00	326		763								
	STD	0050	0467	3474	2753		000571		340		701								
219	OBS	0051	0461	34747	2754					14	699								
	STD	0075	0426	3482	2764	(	000471	0 0	J53	14	689								
	STD	0100	0401	3486	2770	4	000417	8 00	064	14	684								
219	OBS	0102	0400	34866	2770						684								
	STD	0125	0395	3487	2771		000405		274		685								
	STD	0150	0390	3488	2772		000398	7 00	185		687								
219	OBS	0153	0389	34878	2772						688								
	STD	0200	0375	3487	2773		000391	2 0	104		689								
219	OBS	T0205	0374	34872 3487	2773		000304	4 0	124		690 694								
210	STD	0250 0256	0367	34864	2773 2773		000394	• U	124		695								
219	STD	0300	0365	3466	2774		000397	1 0.	144		702								
219	OBS	0308	0365	34864	2774						703								
217	STD	0400	0359	3486	2774		000402	1 0	184		715								
219	OBS	0410	0358	34860	2774			-	-		717								
	STD	0500	0357	3486	2774		000407	5 0.	224		731								
219	OBS	0512	0357	34862	2774						733								
	STD	0600	0356	3487	2775		000411	9 0	465		747								
219	OBS	0614	0356	34867	2775					14	750								
	STD	0700	0356	3487	2775		000417		307		764								
	STD	0800	0357	3488	2776		000419	3 0.	348		761								
219	OBS	0815	0357	34881	2776						784								
	STD	0900	0355	3489	2776		000422	-	191		797								
	STD	1000	0353	3489	2777		000425	1 04	+33		813								
219	OBS	T1014	0353	34890	2777			-			815								
	STD	1100	0354	3490	2777		000429		476		830								
	STD	1200	0355	3490	2777		000435		19		848								
	STO	1300 1400	0357	3491 3491	2778 2778		000441 000447		963 507		865 882								
	SID	1500	0359	3492	2778		000447		552		900								
219	085	1507	0359	34916	2778		000472	0.	- , _		901								
219	003	(1)01	0337	24710	2110					. 7	, • 1								

NCE			$\neg \neg$		MAR	SDEN	STATIO	ON TIA	48		l l	DRIGINA	ATDR	t'S	DEPTH	DEPTH		WAVE SERVATION	,	WEA-	CLOUD		51	ATION	
ID,	CODE	LATITUE	E LO	NGITUDE	SOU			MTI		YEAR	CRUISE NO.	ST	UMI		BOTTO	0.5	-	HGT PER		CDDE	TYPE AMT			UMRER	
NO.	0001		1/10	1/10	10*	1,	MO D	AY HR						-				+ + -		~ 7				0016	
092	55	5628	5N 05	058 W	186					967	826				3656	15	06	2 5	- 1	X 2	6 8	I	1	0015	
						WA.	TER	w	ND	BARD	)- <u> </u>	AIR TEM	_	.2IV	ND. DBS.	SPI	CIAL								
						COLOR	TRANS.	DIR	OR	(mbs		DRY IULB	80		DEPTH	OBSER	VATIONS								
						COOL		3 =	505	17	_	94	0	86 7	14			i							
						<u> </u>	<u> </u>	15	307	1	-	,,,,	<u> </u>		٠,				-						T
	MESSENGR	CAST	CARD	DEPTH (m)		D* 1	s	/	SIGM	A-T	SPECIFIC	C VOLUA	ME n7	₹ ∆ D DYN. M	. SC	OCITY	O 2 ml/	1 PO4-1		pTAL-P g - at/I	NO2-N ug - ot/l	NO <sub>3</sub> =N μg · αl/l	\$1 O4-\$1 pg - a1/1	pН	1
	TIME HR 1/10		TYPE	DEPTH S		_	1				Anon	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		x 10 <sup>3</sup>	***				11-			<b>99</b> - 40 -			4
	11K 17 10	1											Ì						1				l	1	-1
	1	1 1	STD	0000	۱ (	757	346	6	270	09	000	980	8	0000	1	4808									
	20	_	085	0000		757		60	27	09					1	4808									
	20	,	510	0010		723	346		27.		000	939	1	0010		4797									
			STD	0020		0678	346		27.	20	000	3884	3	0019		4781									
	20	5	085	0024		0658	346	550	27.	22						4773									
	-		510	0030	(	0612	348	6	27	29	000	796	3	0027		4756									
	20	5	OBS	0049	(	0495		705	27							4712									
			STD	0050		0492	34		27			0621		004		4711									
			ST0	0075		0434	34		27	-	001	0479	13	005		4693									
	20	5	085	0097		0401	-	880	27			0 6 0 1	۵	0066		4683 4683									
			STD			0400	34		27 27			0401 0394		007		4685									
			STD			0393	34		27		00	0334		00 /1		4686									
	20	15	085	0147		0387	34.	885	27		00	0368	17	0084		4686									
			STO	0150 10196		0386 0376	-	885	27		-					4689									
	20	15	OBS			0375	34		_	74	00	0386	0	010	5 1	4689									
	20	\ <del>-</del>	ST0	0246		0372		870		73					1	4696									
	20	75	STO			0373	34			73	00	0395	2	012	5 1	4697									
	20	15	085	0295		0375	34	883	27	74						4705									
		, ,	STO			0374	34	88	27	74	00	0394	+0	014		4705									
	20	)5	085	T0393		0359	34	867		74						4714									
	-	_	ST	0404	)	0359	34	87		74	00	0398	30	018		4716									
	20	) 5	085	0491		0360		858		74			2.5	0.10		4731									
			STO			0360		86		74	00	0413	35	022	-	4732									
	20	) 5	OBS	0590		0357		857		74	0.0	04.1	76	046		4746									
			STO			0357	_	86		74		0417		020	-	4765									
			ST			0358	-	86		774	ŲÜ	0426	99	0.0	_	4779									
	20	05	085	0788		0358	-	865	_	174	0.0	0430	0.5	035		4781									
			ST			0357		87 87		174 175		043		039	_	4796									
			STO			0353	_	866		175	00	Q 70;		039		4809									
	20	05	085	0985		0350	-	87	_	176	0.0	0435	55	043		4812									
			STI			0352	-	87		775		0449		048	-	4829									
			STO			0354	_	87		775		045		052		4846									
			STI			0355	_	88		776		045		0>7		4864									
			ST			0357		88		776		046		061	9	4884	2								
	2	05	085	T148		0358	-	890		776						4896									
	21	0 3	003	1240	•	3,500	-																		

NCE	SHIP			± 5	MARSOEN	STATION TIA		ORIGINATO	R"S	DEPTH DEPTH		WAVE SERVATIONS	WEA-	CLOUG		N	DDC	
10. NO.	COOL	LATITUO	- 1	NGITUDE NGITUDNG	SQUARE	IGMTI MO DAY HR	YEAR	CRUISE STAT		OTTOM S'MPL	1	HGT PER SEA	THER	TYPE AM	-		ATION JMBER	
			1/10										1		1			
092	\$5	5629	N 0	5057 W	186 60 WA1		02 1967	B26 016		1566 15	09	13   5	X4	X   9	I		0016	
					COLOR		SPEED MET	0-	VIS.		ECIAL VATIONS							
					COOE	Im) DIR.	OR Imb		LEI CODE	DEPTHS OBSER	YA RUNS							
						17	513 11	9 086 0	86 5	14		1						
	Г	1 1			1	T 1-1			-1-1			1						7.
	MESSENGR	LCAST NO.	CARD	OEPTH (m)	7" 1	s °4.	SIGMA-T	ANOMALY-X107	₹ ∆ 0 0YN, M. x 10 <sup>3</sup>	VELOCITY	O3 w/	PO4-P	1DTAL-P pg - o1/1	NO2-N µg - al/l	NO3-N ug - ot/l	\$1 O4-\$1 yg - at/1	pН	C
	HR 1/10					-			X 10°			-	-	-		-		$\mathcal{H}$
	1		_				0.7.4		01100	14707		1	į.					11
	2.0		STD	0000	0703	3464	2715	0009221	0000	14787								
	202	2	OBS STD	0000	0703 0687	34641 3464	2715 2718	0009004	0009	14787 14782								
			STD	0020	0657	3465	2722	0008610	0018	14772								
	20	2	085	0026	0632	34649	2726	0003010	0010	14763								
	20,	_	STD	0030	0601	3466	2730	0007829	0026	14752								
			STO	0050	0478	3472	2750	0005986	0040	14706								
	20.	2	OBS	0052	0469	34724	2751			14702								
			STD	0075	0436	3482	2763	0004814	0053	14694								
			STD	0100	0412	3488	2770	0004140	0065	14689								
	20	2	OBS	0103	0410	34888	2771		- >	14688								
			STD	0125	0409	3489	2771	0004090	0075	14691								
	2.0	2	STO	0150	0405	3488 34882	2771 2771	0004096	0085	14694								
	20	2	0BS STD	0155	0386	34602	2772	0004024	0105	14694								
	20	2	085	T0208	0384	34871	2772	0001011	0.00	14694								
	20	_	SID	0250	0376	3487	2773	0003983	0125	14698								
	20	2	085	0258	0375	34871	2773			14699								
			STD	0300	0373	3487	2773	0003998	0145	14705								
	20	2	085	0310	0372	34871	2773			14706								
			STD		0363	3487	2774	0003990	0185	14717								
	20	2	OBS	T0410	0362	34870	2774	2001000	0.127	14718								
	2.0		STO		0359 0358	3486 34862	2774 2774	0004083	0226	14732								
	20	2	085 STD	0517	0359	3487	2774	0004149	0467	14749								
	20	2	085	T0620	0359	34867	2774	0001217	0-01	14752								
	20	-	STO		0359	3487	2774	0004221	0309	14765								
			STO		0359	3487	2775	0004298	0351	14782								
	20	2	OBS	0825	0359	34869	2775			14786								
			STD	0900	0358	3487	2775	0004335	0395	14798								
			STO		0356	3488	2776	0004359	0438	14814								
	20	2	OBS	T1030	0355	34879	2776	00044.12	0401	14819								
			STO		0355	3488 3489	2776 2777	0004423	0482	14831 14848								
			STO		0356	3489	2777	0004436	0571	14865								
			510		0356	3489	2776	0004520	0017	14882								
			STO		0357	3489	2776	0004691	0663	14899								
	20	2	085	T1546	0357	34896	2777			14907								

REFERENC	CE			<u>≠</u>	MARSDEN	STATION TI		ORIGINA	TOR'S	OEPTH	MAX. DEPTH		WAVE	WEA	CLOUD			NOOC	
CTRY IC	O. CODE	LATITU		NOCT BRIEF	SOUARE	(GMTI	YEAR	CRUISE ST	ATION	BOTTOM	OF		ERVATIONS	THER	CODES			TATION	
			1/10	1710	10' 1'	MO DAY H		<del>                                     </del>			S'MPL'S	DIR	HGT PER SE	A	TIPE IAM	1			
3 1 1 0	92 55	5631	N 05	103 W	186 61			B26 017		3566	15	16	2 2	X 1	1815			0017	
							SPEED MET		VIS.	NO.	SPEC	DIAL							
					COLOR	TRANS. DIR.	OR (mb:		BULB COD	DEPTHS	OBSERV.	2 NOIT A							
						17	505 13	1 094	068 7	14		-							
				1		1 4 1	303 13	1 034	-	4							1		П
	MESSENG	CAST	CARO TYPE	DEPTH (m)	T *C	s ./.	SIG M A -T	SPECIFIC VOLUM		SOL	JND	O2 ml/l	PO <sub>4</sub> ~P	TOTAL-P		NO <sub>3</sub> -N	SI Q4-Si	pН	500
	HR 1/10	7	1076						x 10 <sup>3</sup>	7,550			μg = 01/1	)g = ot/l	ug = ot/l	μg - αl/l	) ng - al/l		
			STD	0000	0754	3463	2707	0009990	0000		807								
	20	12	085	0000	0754	34630	2707				807								
			STD	0010	0749	3463	2708	000991			806								
	2.0		STD	0020 0025	0715 0686	3464 34638	2713 2717	0009450	0020		795 784								
	20	2	OBS STD	0025	0623	3468	2729	0007950	0028		761								
			STD	0050	0431	3480	2762	0004878			687								
	20	2	085	0050	0431	34801	2762				687								
			STD	0075	0403	3484	2768	0004324	0053	3 14	680								
			STD	0100	0387	3487	2772	000397	7 0063	14	<b>678</b>								
	20	2	085	0100	0387	34868	2772				678								
			STD	0125	0388	3488	2773	0003919	0073		682								
	20	12	085	0149	0388	34887	2773	000300			687								
	20	12	STD	0150 T0199	0388 0376	3489 34882	2773 2774	000389	2 00 83		687								
	20	2	OBS STD	0200	0376	3488	2774	0003859	0102		690								
			STD	0250	0378	3488	2774	000390		_	699								
	20	12	085	0250	0378	34884	2774	000000			699								
			STD	0300	0372	3488	2774	000392	7 0141		705								
	20	2	OBS	0300	0372	34879	2774			14	705								
	20	12	OBS	TQ395	0368	34880	2775				719								
			STD	0400	0368	3488	2775	000396	9 0180		719								
	20	12	OBS	0497	0366	34879	2775	000404	4 0/31		735								
	20	12	STD OBS	0500 70598	0366 0367	3488 34880	2775 2775	000404.	3 0421		735								
	20	-	STD	0600	0367	3488	2775	000413	3 0261		752								
			STD	0700	0362	3488	2775	000416			767								
	20	2	OBS	0792	0359	34876	2775				781								
			STD	0800	0359	3488	2775	0004244	0345	5 14	782								
			SID	0900	0359	3488	2775	000433	0388	14	799								
	20	2	OBS	T0987	0359	34875	2775				813								
			STD	1000	0359	3488	2775	000438			815								
			STD	1100	0359	3488	2775	000446			832								
			STD	1200	0359	3488	2775	000455			849								
			STD	1300 1400	0360 0360	3488 3488	2775 2775	000463			866								
			5TD	1500	0360	3489	2776	000472			900								
	20	) 2	OBS	11527	0360	34891	2776	300473			905								
	20	· ·	000	(1)-	0,00	24071	2110				, , ,								

REFERENCE SHIP	LATITUDE	ONGITUOE SOUTIONO.	MARSOEN	STATION TH		ORIGINATI	DR*S	OEPTH MAX		WAVE	WEA	Crono			NDOC	
CTRY 10, COOK	1/10	NOUSITUOE NO.		MO DAY HI	YEAR		TION	BOTTOM S'MPL	1	HGT PER SE	THER	TYPE AM	1		UMBER	
311092 55 5		15058 W				1					^	1		_		
1 21/10/21 22 1 2	7027 R   C	JUJO W	WAT		UND	A ID TEALD	°C	3506 14		3 3	X2	7 8	l	- 1	0018	
			COLOR	TRANS. DIR.	SPEED MET	0-	VIS,	OBS. Deces	CIAL VATIONS							
			CODE	imi	FORCE (mb	a) BULR B	ULB	OEPTHS OBSEK								
				31	508 23	2 078 0	72 7	14								
MESSENGR TIME OF	CAST CARO	OEPTH (m)	1 %	s */	SIGMA-T	SPECIFIC VOLUME	₹ ∆ o oyn, m	SOUNO	O 2 m[/]	PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO3-N	S1 O 4 - Si		S
HR 1/10 T	NO. TYPE			' "	JIOM A-1	ANOMALY-X107	x 10 <sup>3</sup>	, AEFOCITA	02 11171	yg = at/1	1/10 - وبر	µg - ot/(	µg - at/l	µg - at/1	pН	c
																$\top$
,	STE	-	0758	3462	2706	0010104	0000	14808		' '		'			'	
202	OBS	0000	0758	34622	2706			14808								
	STO		0732	3463	2710	0009714	0010									
202	STE		0691	3464	2717	0009124	0019	14786								
202	OBS STE	0023	0676 0619	34639 3466	2719 2728	0008050	0028	14780								
202	OBS	0046	0513	34702	2745	0008090	0028	14719								
	STE		0499	3472	2748	0006217	0042									
	STO	0075	0431	3483	2764	0004687	0056									
202	QBS	0091	0404	34873	2770			14684								
	STE		0403	3488	2771	0004048	0067	14685								
202	STO		0399	3488	2771	0004032	0077	14687								
202	08S S10	0137	0396 0390	34883 3488	2772	0003076	00.07	14688								
202	OBS	T0185	0378	34877	2772 2773	0003965	0087	14687								
	STD		0376	3488	2773	0003900	0106	14690								
202	OBS	0229	0374	34874	2773			14694								
	SID		0373	3487	2774	0003930	0126	14697								
202	OBS	0276	0372	34875	2774			14701								
207	SID		0371	3488	2774	0003940	0146									
202	085 STD	T0368	0368 0365	34877	2774 2774	0003974	0185	14714								
202	085	0460	0362	34871	2774	0003774	0105	14727								
	STD		0361	3487	2775	0004041	0425	14733								
202	OBS	T0558	0360	34874	2775			14742								
	STD		0359	3487	2775	0004094	0266	14749								
	STD		0358	3487	2775	0004161	0307	14765								
202	085	0738 0800	0357	34874	2775	0001330		14771								
	STD		0357 0356	3488 3488	2775 2775	0004228	0349	14781 14797								
202	085	T0926	0356	34878	2776	0004289	0372	14802								
100	STD		0357	3488	2776	0004347	0435	14814								
	STD		0357	3488	2776	0004415	0479	14831								
	STD		0358	3489	2776	0004474	0523	14849								
	STD		0358	3489	2776	0004534	0568	14866								
20.2	STD		0359	3490	2777	0004593	0614	14883								
202	OBS	T1413	0359	34896	2777			14885								

RENCE	TT		$\top$	LE	MAR	SOEN	STAT	ION TIM	E		$\overline{}$	ORIGIN	ATOR	r's	QEPTH	MAX		WAVE		WEA-	CLOUD			NODC
ID.	CODE	LATITUD	E LO	NGITUDE NGITUDE	sou	ARE	(	GMT)		re ar	CRUI		STATE		TO	UEFIL	d OB	SERVAT	ION S	THER	CODES		\$1	TATION
NO.	0000	<u> </u>	1/10	* "1/10 Z	10°	1°	MOIT	DAY HR.	1/10		NO	).	NUME	BER	BOTTON	S'MPL	'S DIR	HGT PE	R SEA	CODE	TYPE AM	7	N	UMBER
1092	55	56335	N OS	115 W	186	61	07	18 2	03 1	967	B2	6 01	9		3630	1 15	00	lo lx		X5	7 8			0019
					,	WAT		WI		BAR		AIR TE		- 1	NO.	1						•	'	0019
						COLOR	TRANS.	DIR.	SPEED	MET	ER	DRY	WE			OBSER	ECIAL VATIONS							
						COGE	(m)		FORCE	(mb	s)	BULB	BUI	LR	DEFIN:									
								00	500	22	8	085	0	72 6	14									
	MESSENGR	CAST	CARD	_	Τ.		T.	.,			SPECI	FIC VOLU	IME	₹ ∆ 0 0YN. M	50	מאט		PO	-P T	OTAL-P	NO2-N	NO3-N	SI O4-Si	
	TIME	NO.	TYPE	OEPTH (m)	1	*C	S	*4.	\$IG M	A-T		MALY-X		X 10 <sup>3</sup>	VEL	OCITY	Q2 ml/	µg •		ug - el/l	ug - al/l	μg = α1/1	31 U4=31	pН
	HR 1/10				+		+				1		-		+			+-	-+					
	l		STO	0000	1	841	34	72	270		١	1057	ا ۾	0000	1,	841		1		I			1	1
	203		085	0000		841		717	270	_	00	105,	0	0000		841								
			STO	0010		815	34		270		0.0	1020	4	0010		833								
			STO	0020		771	34		271			0957		0020		818								
	203		OBS	0026		735		723	271		-	-,,,,	-	3-20		805								
			STD	0030		693	34		272		0.0	0839	9	0029		789								
			STD	0050		520	34		275			0600		0044		724								
	203	1	085	0051	0	513	34	787	275							721								
			STD	0075		423	34	81	276		00	0475	4	0057		688								
			STD	0100		365	34	83	277			0404		0068		668								
	203	3	OBS	0102	0	362	34	834	277	1					14	667								
			SID	0125	0	363	341	84	277	4	0.0	0397	6	0078	14	672								
			STD	0150	0	365	34	84	277	2	00	0401	. 3	0088	14	676								
	203	3	OBS	0154	0	365	34	843	277	2					14	677								
			STD	0200	0	365	34	85	277	2	00	0398	4	0108	14	685								
	203	i	085	10207	0	365		854	277						14	686								
			STD	0250		360	34		277		0.0	0395	3	0128		691								
	203	l .	OBS	0256		359		853	277							692								
			STD	0300		359	344		277		00	9860	9	0148		699								
	203	1	QBS	0307		359		853	277							700								
			STD	0400		358	341		277	_	00	0394	0	0187		715								
	203		085	T0404		358		871	277							716								
			STD	0500		356	341		277		00	0400	16	0427		731								
	203	1	OBS	0509	_	356	-	870	277		0.0	0.00		0.160		732								
	202		STD	0600		356	341		277		00	0408	1	0268		747								
	203	)	085	T0614		356	341	871	277		0.0	06.14		0.400		750								
			SID	0700 0800		355	341		277			0414		0309		764								
	203		STD 085	0812		353 353		874	277		UU	0419	0	0350		780								
	203		SID	0900		353	341		277		0.0	0422	7	0393		796								
			STD	1000		352	34		277			0422		0435		1813								
	203		085	T1022		352		894	277		00	0722	. ,	0433		816								
	203		STO	1100		353	349		277		0.0	0427	15	0477		830								
			STO	1200		354	349		277			0434		0220		847								
			STD	1300		355	34		277			0441		0564		864								
			STD	1400		356	34		277			0448		0609		882								
			STD	1500		357	349		277			0456		0654		899								
	203		OBS	T1519		357		908	277							902								

REFERENCE		E N	ARSDEN	STATION TIM		DRIGINATO	2'S	DEPTH DEP		WAVE	WEA-	CLOUD			NDDC
CTRY ID. CODE LATITU			DUARE	(GMT)	YEAR		ION ABER	OT OT OT	F   U	SERVATIONS	THER	CODES		S	TATION
	1/10			MD DAY HR.			NOCK			HGT PER SE	^	TYPE AM	1		
3111092 55   5629	N   05	056 W   1			12 1967		50	3566 1	4 19	3 4	X 6	1 6 8		- 1	0020
			COLDR		SPEED MET		VI\$,		PECIAL						
			CODE	DIR.	OR (mb		ULB CODE	DEPTHS OBSE	RVATION S						
				19	515 17	9 088 (	82 6	14							
MESSENGR CAST							₹∆D			1					1
TIME OF NO.	CARD	DEPTH (m)	T °C	s */	SIGMA-T	SPECIFIC VOLUME ANOMALY-X107	X 103	. VELOCITY	0 2 ml/	PO4-P yg - et/l	10TAL-P pg - 01/1	NO2-N pg - a1/1	NO3-N P9 - al/I	51 O4Si pg = o1/l	рн 🤅
HR 1/10				-			X 10*	-	-					-	
		1			2700		1						ŀ	ļ	1
202	STD	0000	0790	3460	2700	0010699	0000								
202	08S STD	0000	0790 0764	34602 3462	2700 2705	0010241	0010	14820 14812							
	STD	0020	0709	3463	2714	0010241	0020								
202	OBS	0022	0695	34635	2716	0007277	0020	14787							
202	STD	0030	0593	3470	2735	0007432	0029								
202	OBS	0045	0450	34802	2760			14694							
	STD	0050	0441	3481	2761	0004915	0041	14691							
	STO	0075	0405	3486	2769	0004194	0052								
202	OBS	0090	0392	34876	2772			14678							
	STD	0100	U391	3488	2772	0003927	0063								
2.2.5	510	0125	0389	3488	2772	0003931	0072								
202	OBS	0135	0388	34884	2773	000 (1) 7(	0110	14684							
202	STD OBS	0150 T0180	0385	3489 34886	2773 2774	0003876	0082	14685							
202	STD	0200	0379	3488	2773	0003900	0102								
202	OBS	0226	0376	34876	2773	0003700	0-02	14694							
202	STD	0250	0372	3487	2774	0003920	0121	-							
202	OBS	0270	0370	34873	2774			14699							
	STD	0300	0369	3487	2774	0003934	0141	14703							
202	OBS	10358	0367	34876	2774			14712							
	STD	0400	0367	3487	2774	0004002	0180	14719	)						
202	OBS	0449	0367	34872	2774			14727							
	STO	0500	0367	3487	2774	0004120	0221								
202	OBS	T0542	0367	34868	2774	0004 )55	0.144	14742							
	STD	060U 0700	0367	3487	2774	0004208	0263								
202	STD OBS	0700	0365	3487 34874	2774 2774	0004284	0309	14768							
202	STD	0800	0360	3487	2775	0004302	0348								
202	OBS	T0894	0355	34866	2775	3004302	0.540	14796							
202	STD	0900	0355	3487	2775	0004358	0391								
	STO	1000	0355	3487	2775	0004423	0435								
	STO	1100	0356	3487	2775	0004495	0480								
	STD	1200	0356	3487	2775	0004567	0525	14848	i						
	STD	1300	0357	3488	2775	0004631	0571	14865							
202	OBS	11392	0357	34878	2775			14880	)						

REFERENCE SHIP		- E	MARSOEN	STATION TIA		ORIGINATO	R*S	DEPTH MAX.	WAVE	WEA-	Crono			NODC
CTRY ID. CODE LATIT	1/10	NGITUDE TO			YEAR	CRUISE STAT		DOTTO OF	OBSERVATIONS	CODE	CODES			UMBER
		1710		MO DAY HR.	1		100%	2 W.L.2	DIR. HGT PER SEA		TYPE A MT			
31 1092  55   562	7 N   05	053 W			06 1967			3506 15	34 4 3	X1	7 7			0021
			WAT		SPEED MET		VIS.	NO. SPECIAL	.					
			COLOR	TRANS. DIR.	OR Imbi		JLB CODE	DEPTHS OBSERVATE	2 14 C					
				34	529   11	6 082 0	73 7	14	_					
	1													
MESSENGR CAST	CARD	DEPTH (m)	1 °C	s */	SIG MA-T	SPECIFIC VOLUME ANOMALY-X107	₹ ∆ D	. SOUND O2			NO2-N	NG3-N	51 04-51	pН
HR 1/10	-						X 10 <sup>3</sup>	VELOCIII	. yg - 61/1	ا/10 - ولا	µg ~ 01/1	yg - 01/1	µg = a1/l	
											ĺ			
	STD	0000	0759	3463	2706	0010073	0000							
205	OBS	0000	0759	34628	2706			14809						
	STD	0010	0692	3466	2718	0008950	0010							
205	STD	0020	0623 0595	3469 34707	2730	0007661	0018							
205	OBS STD	0024 0030	U543	3474	2735	0006541	0025	14749						
205	OBS	0047	0430	34807	2762	0000041	0025	14686						
203	STD	0050	0427	3481	2763	0004769	0036							
	STO	0075	0407	3486	2769	0004214	0048							
205	OBS	0496	0396	34877	2771	0004214	0040	14681						
	STO	0100	0396	3468	2771	0004000	0058							
	STD	0125	0392	3487	2772	0004013	0068							
205	OBS	0143	0389	34871	2772	000.013	0000	14686						
	STD	0150	0387	3487	2772	0003994	0078							
205	OBS	T0192	0379	34878	2773		00.0	14690						
	STD	0200	0378	3488	2774	0003890	0098							
205	OBS	0237	0375	34881	2774			14696						
	STD	0250	0373	3487	2773	0003960	0117	14697						
205	OBS	0283	0369	34857	2773			14700						
	STD	0300	0367	3485	2772	0004093	0137	14702						
205	085	T0370	0363	34648	2772			14712						
	STD	0400	0365	3466	2773	0004086	0178							
205	085	0470	0368	34870	2774			14731						
20.5	STD	0500	0368	3487	2774	0004109	0419							
205	085	T0571	0368	34679	2774	000/150	0.34	14748						
	STD	0600 0700	0368 0368	3488 3488	2774 2774	0004159	0261							
205	085	0762	0366	34874	2774	0004261	0303							
205	STD	0800	0363	3487	2774	0004336	0346	14779						
	STD	0900	0358	3486	2774	0004338	0390							
205	OBS	10968	0355	34859	2774	0004431	0390	14808						
	STD	1000	0355	3486	2774	0004489	0434							
	STD	1100	0356	3486	2774	0004582	0480	-						
	STD	1200	0357	3486	2774	0004675	0526							
	STD	1300	0358	3487	2775	0004695	0573							
	STD	1400	0359	3487	2775	0004788	0620							
205	OBS	T1486	0360	34885	2776			14898						

4CE	SHIP				MARSOEN	STATION THE	ME YEAR	ORIG1N/		OEPTH GEPT	THI OR	WAVE SERVATIONS	WEA-	CLOUD		,	NOOC	
10. NO.	COOE	LATITU	1/10	LONGITUDE	10° 1°	MO DAY HE			UMBER	BOTTOM S'MP		HGT PER SE					UMBER	
092	S5	5631	5N (	05106 W	186 61	07 21 2	02 1967	826 02.	2	3500 1	5 30	24	XI	3 3			0022	
	'		,	, ,	W/	TER W	IND BAR		VIS.	NO. SI	PECIAL							
					COLO		OR (mb		WET COOL		RVATIONS							
						22	507 16	_	082 7	14		1						
					T		30.   20	1	T = 1 0	_	T	40.		NO2-N	NO3-N	51 04-51		s
	MESSENGR TIME		CARD	OEPTH (m)	T °C	5 %.	SIGMA-T	ANOMALY-XI		. AFFOCITA	02 ml/	PO4-P pg = 01/1	TOTAL-P	vg - al/1	pg - al/t	yg - o1/l	pН	C
	HR 1/10	-				+					-							$\forall$
	I		STI	0000	0791	3462	2701	001056	5 0000	14821	1	' '				1	'	
	20	2	085	0000	0791	34622	2701	•••		14821								
			ST		0784	3463	2703	001039										
		_	ST		0750	3465	2709	000985	7 0021	14809								
	202	2	OBS ST		0724 0667	34651 3468	2713 2723	000850	7 0030									
			ST		0489	34.76	2752	000580										
	20.	2	OBS		0482	34768	2753			14708								
			ST		0441	3485	2764	000464										
			ST		0410	3489	2771	000404	5 0468									
	20.	2	085 ST		0409 0398	34895 3489	2771 2772	000394	7 0078	14688								
			ST		0387	3489	2773	000385										
	20.	2	OBS		0386	34888	2773			14686								
			ST		0380	3489	2774	000384	5 0107									
	20.	2	085		0380	34889	2774	000000		14692								
	20	2	ST		0376 0376	3489 34887	2774 2774	000386	5 0126	14698 14698								
	20.	۷	ST		0369	3488	2774	000389	2 0146									
	20.	2	085		0369	34875	2774			14704								
			\$T	0400	0360	3487	2775	000396	0 0185									
	20.	2	OBS		0360	34870	2775	000403	2 0225	14716 14734								
	20.	2	ST OBS		0363 0363	3488 34876	2775 2775	000403	2 0223	14735								
	20.	2	ST		0358	3487	2775	000411	2 0466									
	20.	2	OBS		0358	34870	2775			14749	1							
			ST	D 0700	0358	3487	2775	000418	9 0307									
			ST		0357	3487	2775	000426	8 0349									
	20	2	OBS		0357 0355	34868 3487	2775 2775	000434	0 0392	14782 14797								
			ST ST		0352	3487	2775	000434										
	20	2	OBS		0352	34868	2775	,		14814								
		_	ST		0353	3487	2775	000447										
			\$T		0355	3487	2775	000457										
			ST		0356	3488	2776	000459										
			ST ST		0358 0359	3489 3490	2776 2777	000462	_									
	20	2	OBS		0359	34896	2777			14900								
		-																

Table VIII. Observed and interpolated oceanographic data for stations taken by USCGC McCULLOCH at Ocean Station BRAVO, 14 August-5 September 1967, prepared from NODC listing No. 31-1157 ML.

955	RENC							T _T		T				r	T	ORICH	NATOR	nter .	_		MAR.										7
CTRY	10.		HIP	LATITU	DE	LONG	SITUOE	V DCT	MARS	ARE	21VI	ION T	IME	YEAR	CRU		STATE		$\dashv$	DEPTH	DEPTH	08	SERVA	V E A TION S	W TH	EA-	CLOUD			NODC	
CODE	NO		ODE		1/10		1/10	P로는	10*	1"	MOID	DAY	IR.1/10	ł	N		NUM		- 1	MOTTOM	OF S'MPL'S	DHL	HGT	PER SE		300	TYPE AM	-		UMBER	
31	115	5.7	ML	5604	O.N.	051	120W		186	61	08	14	163	196	7 B2	7 00	11			1475	14	19	3		$\top$		28			2001	
,		-			•••			1 1	1	WA			VINO	1	1		MP. 1	<u>- T</u>	-1		17	1,	ויון	1	- 1		410	1	- 1	0001	1
									1	COLOR	_	DIR	SPEE	O BAI		DRY	WI	_ \	VIS.	NO. OBS.	OBSERVA										
										CODE	(m)	OIR.	FOR	(-1		BULB	BU			OEPTHS	OBJERTA	110143									
									Ĭ			22	51:	3 0	50	114	110	12	7	14			1								
		an i	SSENGR								<b>T</b>		1		1		1	<b>5</b> ^		T			Τ.			$\neg$					-
			TIME 0	CAST NO.	CARI		DEPTH	(m.)	T	°C	2	٠/	510	MA-T	ANI	IFIC VOL	107	₹ ∆ DYN,	, M.	SOL		02 ml/		O4-P	TOTA!		NO <sub>2</sub> -N µg - al/l	NO3-N pg - al/l	SI O4-S ug - al/		
		H	R 1/10										+		-			Ж 1	0-	+	-					-		Pg - 001	pg - 017		_
									_		1							0.0		١,,										1	
			160		51		000			981	34			668	00	137.	19	000	00		892										
			163	,	085	_	000			981		583		668		. 1 2 7	2.0	0.0			892										
					\$1		001			980	34			668		137		00			893										
			163		51 085		002			978 977	34	26 575		668 668	U	137	,,	00	21		894 894										
			103	,	51		003			888	34			685	0.0	121	3.0	00	441		862										
			163		085		004			586		748		739	•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	50.			750										
			203		51		005			568	34			742	0.0	0067	86	00	59		743										
					51		007		-	447	34			758		052		00			698										
			163	1	085		009			387		803		766				• •			676										
					51		010		0	385	34	81		767	0.0	0043	93	00.	86		676										
					51	10	012	5	0	377	34	83		770	0.0	0041	86	00	97		677										
			163	1	085	5	014	0	0	373	34	835	2	770						14	678										
					\$1	ΓD	015		0	371	34	84	2	771	06	0041	04	01	07	14	679										
			163	1	085		T018			365		838		771							682										
					\$1		020			364	34			772	00	0040	50	01.	28		684										
			163	1	085		023			363		840		772				0.1			689										
			14.2		51		025			367 370	34.	853		772 772	00	040	49	01	48		694										
			163	,	083		027			368	34			773	0.0	0.60	2.0	01	4 0		699										
			163		085		T036			367		864 864		773	0.0	0040	29	011	00		703 712										
			100		51		040			370	34			774	0.0	040	64	021	no		720										
			163		085		044			372		879		774	50		~	021	,		728										
					51		050			370	34			774	0.0	041	15	025	50		737										
			163		085		054			368		87Ź		774			-		-		743										
					51	D	060	0	0	365	34	87	2	774	0.0	0041	64	029	91	14	751										
					51	O	070	0	0	361	34	87	2	775	00	0041	98	03	33	14	766										
			163	l	085		072			360		874		775							770										
					51		080			360	34			775		042		03			783										
					51		090			360	34			776	0(	042	45	04	17		799										
			163		085		T090			360		690		776							800										
					51		100			360	34			776		0043		04			816										
					51		110			359	34			777		00434		05			832										
					51		120			358	34			777		0043		054			849										
					51		130			357	34			777		0044		059			865										
			160		51		140			355	34			778	00	0044	78	00	36		881										
			163		OBS	>	T140	-	U	355	54	905	- 2	778						14.	882										

REFERENCE			- a	MARSOEN	STATION TH		ORIGINAT	QR'S	OEPTH	MAX. OEPTH		WAVE	WEA-	Crono		١	1000	
CTRY IO. CODE	LATITUD	1	GITUOE JOUR	SOUARE	(GMT)	YEAR	CRUISE STA	TION	BOTTOM	OF S'MPL'S		ERVATIONS	THER	CODES		ST	ATION	
	1	1/10	1/10		MO DAY H			MIDEN	2 . 25		DIR	HGT PER SEA	`	TYPE AM				
31 1157  ML	56300	N   05	1032W			62 1967	827 002	50 I	3475	16	06	1 4	41	7 8	l		0002	
				COLOR		SPEED MET	O+	VIS.	NO.	SPEC								
				CODE	TRANS. DIR.	FORCE (mb		BULB COD	DEPTHS	O8SERVA	IIONS							
					12	\$13 04	0 096	086 4	14									
WESSEN							T		sou			00 0			110 11	510 5		5
TIME	OI NO.	CARD TYPE	OEPTH (m.)	ĭ °C	5 %.	SIGMA-T	ANOMALY-X107	¥ △ 0 DYN. W x 10 <sup>3</sup>	VELO		O2 ml/s	PO <sub>4</sub> -P yg - 01/1	101AL-P y0 - 01/1	NO2-N ug - et/l	NO3-N pg - ol/l	21 O4-21	pН	c
HR 1/1	0					-		1		-		+						+
		STD	0000	0980	3460	2669	0013592	1 0000	) 148	191		1						11
16	52	OBS	0000	0980	34598	2669	001-372	****	148									
-		STD	0010	0975	3460	2670	0013511	0014	+ 148	391								
		STD	0020	0969	3460	2671	0013439	0021	7 148	391								
10	52	085	0026	0966	34602	2672			148									
		STD	0030	0886	3463	2687	0011951	0040										
		STD	0050	0570	3475	2741	0006610	0056										
16	52	OBS	0051	0558 0450	34754 3478	2743 2758	0005255	0074	147 4 146									
		STO STD	0100	0379	3481	2768	0005255	0086										
1.4	62	085	0101	0377	34810	2768	0004540	0000	146									
1,	02	510	0125	0374	3482	2769	0004198	0096										
		STO	0150	0370	3484	2771	0004075	010	7 146	579								
16	62	OBS	0152	0370	34840	2771			146	579								
		SID	0200	0365	3485	2772	0004018	012										
10	62	OBS	10205	0364	34846	2772			146									
		STD	0250	0361	3485	2773	0004006	014										
10	62	OBS	0254	0361	34848 3486	2773 2773	0004013	016		592 700								
1.	62	STD OBS	0304	0363	34856	2773	0004013	0.10	14									
1	02	STD	0400	0364	3486	2773	0004076	020		718								
1	62	OBS	T0404	0364	34862	2773				718								
		STO	0500	0369	3487	2774	0004140	024	8 14	736								
1	62	085	0504	0369	34873	2774				737								
		STO	0600	0361	3487	2774	0004147	029		750								
1.	62	085	0605	0361	34869	2774	0006160	033		750 766								
		STO STO	0700	0361	3488 3488	2775 2775	0004148			783								
1	62	085	0811	0360	34883	2776	000422	0-1.		784								
•	V.	STO	0900	0360	3489	2776	0004268	041		799								
		STD	1000	0360	3489	2776	0004329	045	9 14	816								
1	62	OBS	T1020	0360	34890	2776				819								
		STD	1100	0360	3489	2776	0004383			6833								
		STD	1200	0359	3490	2777	0004424			849								
		STD	1300 1400	0357 0356	3490 3490	2777 2778	0004459			865 882								
		ST0	1500	0353	3491	2778	0004490			897								
1	62	OBS	T1558	0352	34910	2779	000.51	0-0		907								
		500	12							-								

CE	SHIP				E É	MARS	OEN	STATIO	MIT N				DRIGINAT	DR*S		EPTH	MAX. DEPTH		WA	V E	WEA		auo.			NOOC	
0.	COOE	LATITUE		LONGITUOE	DRIFT	SON		IG/			YEAR	CRUISE NO.		TION		TO	OF			TIONS	COD	18	DOES		S	UMBER	
			1/10	1/10		10*	1.	MO OA	Y HR.	1/10		NO.	NU	WBER	+		S'MPL"	S OIR	HGT	PER SE	1 000	TYPE	A M I			DWIDEK	
57	ML	56280	) NC	051015W	.	186	61	08 16	1:	30 1	967	827	003		34	475	15	03	3			5	8			0003	
							WAT	ER	WII		BARC	)- A	AIR TEMP.	°C ,		NO.	CBE	CIAL									
							COLOR	TRANS.	IIR.	SPEED	METE			VET CO	DE S	DBS. EPTHS		ATIONS									
							CODE		-	FORCE	(mbs	) 6	DT8 8	OL8													
								1:	33 3	505	05	5 1	03 (	98 7		14											
	MESSENGI	CAST	CARD	0.70711	_,		℃				1	SPECIFIC	VOLUME	₹Δ OYN.	0	sou	ואום		. Po	D4-P	TOTAL-	P NO:	a_N	NO3-N	SI O4-Si		S
	TIME HR 1/10	NO.	TYPE	DEPTH I	m)	'	C	5 */	.	SIGM	1-A	ANOM	ALY-X107	X 10	M.	VELC		O 2 ml/		- 01/1	µg = 01/			ug - ot/1	yg - o!/I	pН	CC
		1			$\neg$			-	_						-				-			+	-			-	+
-		1	C.T.(	1 000	0 1	0	0.75	360	,	247		001	2207	1	_	1.			ļ	- 1		1	- 1				11
	13	0	ST(	000			975 975	346		267		001	3297	000	U		890										
	13	0	ST				967	346				001	. 105	()	,		890										
			ST				959	346		267			3205 3114	001			889 887										
	13	n	085	002			955	346		267		001	2114	002	. 0		887										
	10	•	ST				845	3464		269		001	1265	003	9		847										
			ST				509	347		274			6329	005			718										
	13	0	085	005			509	347		274		-	0,000	000	•		718										
			STO				425	3478		276		000	5000	007	0		688										
	13	0	OBS	009	9	0	374	348	8	276	9						672										
			STE	010	0	Ü	374	348	2	276	9	000	4208	008	2	14	672										
			ST	012	5	0	368	3483	3	277	1	000	4097	009	2	14	673										
	13	0	085	014	9	0	365	3483	3.2	277	1					14	676										
			ST				365	3483		277			4075	010	2	14	676										
			ST				364	348		277		000	4004	012	3		684										
	13		085	T020			364	3484		277							684										
	13	0	085	024			361	3484		277					_		691										
	2.2		STE				361	348		277		000	3988	014	3		691										
	13	J	OBS	029			362	348	_	277				- 2	_		700										
	12	2	ST				362	3489		277		000	4035	016	3		700										
	130	,	OBS	T039			364 363	3486		277		000	40.10	0.20	2		717										
	130	2	085	049			359	3486		277		000	4028	020	3		717										
	131	,	STE				359	348		277		000	4038	0.74	-1		731										
	13	2	085	059			366	3488		277		000	4038	024	2		732 751										
	10	9	STE				366	3488		277		000	4108	048	4.		751 752										
			ST				364	3488		277			4165	032			768										
	13	0	085	079			361	3488		277		000	7103	052	_		782										
			ST				361	3488		277		000	4217	036	7		783										
			ST				356	3489		277			4229	041			798										
	130	)	085	1098			353	3488		277					•		811										
			STE				353	3489		277		000	4240	045	2		813										
			STE		0		353	3489		277			4324	049			830										
			STE	1200	0	0	354	3489	)	277			4409	023			847										
			STO	1300	0	0	354	3490	)	277			4419	058			864										
			STE	1400	0	0	354	3490	)	277			4501	062			881										
	13	J	085	T145	2	0	354	3490	14	277							890										

REFERENCE CTAY IO. CODE NO.	ZHIS	LATITUD	E L	ONGITUDE	MAR SOU		STATION (GM	T)	YEA	-	RUISE NO.	GINATO STA'	ION		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL"			VE TIONS	TH	EA- HER DDE	CLOUD CODES		5	NOOC TATION TUMBER
31115		56361		50499W	186	1	08 17		19	67	827			_	3475	11	30					6 7			0004
21/11/2	il wr I	20301	14   0	J0499#	1 2 00	WA		WIND	1			TEMP.			NO.			וידו	,	- 1	. '	0.7	1	- 1	000-
						COLOR	TRANS. OI	R, SPEE	D 1	A ET ER	ORY		/ET  C	VIS.	OBS. OEPTHS		CIAL 'ATIONS								
						CODE	Im)	FDR	CE	(mbs)	BUL		UL8	$\rightarrow$											
							1	9 50	4	130	10	0 1	00	7	13					_					
	MESSENGI TIME HR 1/10	of NO.	CARO	OEPTH (m)	т	°C	s */.	Si	GMA-		PECIFIC V		∑ ∠ DYN X	. M.	VELO		O2 ml/		O4-P - 01/I	IOTA!		NO2-N µg - at/l	NO3-N vg - ol/l	\$1 O4-\$i	
																_								1	
			STO			016	3459		663		0014	204	00	00		905									
	19	5	OBS	0000		016	3459		663 665		0013	97 l	0.0	14		905 901									
			STO			1989	3460 3460		668		0013			28		698									
	19	5	OBS	0027		979	3460		670		0012					896									
			STO			918	3463		682		0012	441	00	41	14.	874									
			STO		C	1586	3474	- 2	739		0007	077	00	61	14	750									
	19	5	OBS	0053	0	548	3475	4 2	744						1.4	735									
			STO	0075	U	1457	3479	2	750		0005	462	00	76		702									
			STO			1386	3481		767		0004	423	00	88		677									
	19	5	085	0107		1375	3461		769				0.1			673									
			STO			372	3483		770		0004		-	99		675 678									
	1.0		STE			369	3484		771		0004	054	0.1	09		679									
	19	5	OBS	0161		364	3484		772		0004	049	0.1	29		684									
	19	5	OBS	70216		363	3483		772		0004	049	0.1			666									
			STE			362	3485		772		0004	034	01	49		692									
	19	5	OBS	0270		361	3484		773						14	695									
			STO			1362	3485		773		0004	042	01	70	14	700									
	19	5	OBS	0325		363	3465		773							705									
			STO			363	3486		773		0004	080	02	10		717									
	19	5	OBS	T0430		363	3486	-	773							722									
			STE			1364	3486		774		0004	133	02	51		734									
	19	5	OBS	0543		365	3486		774		0004	101	0.4	93		742 751									
	1.0		STE			366	3487		774		0004	141	02	73		760									
	19	כ	OBS	T0652		366	3488 3488		775		0004	187	0.1	35		766									
			STO			364	3489		776		0004			177		784									
		5	OBS	0872		363	3489		776		0001	200	0.5	, ,		796									
	1.0																								
	19	,						) 2	776	,	0004	239	04	19	14	800									
	19		STU	0900	(	362	3489 3489		776		0004			19		800 816									

REFERENCE	E SHIP				MAR:		STATION	TIME	VF . 0	_	_	ATDR'S		DEPTH	MAX		WA	VE ATIONS	WEA				NDDC	
CODE NO	CODE	LATITUI		ONGITUDE	300				YEAR	CRUISE NO.		STATION NUMBER		BOTTON	, DF				CDC	P			TATION UMBER	
	-		1/10	1/10	10-	1,	MD DAY			+			-		3 MIL			PER S	EA	TYPE AN		-		
31 115	7 ML	5628	8N   0	50517W	186			140	1967				igspace	3475	10	33	4			617			0005	
						WA	1	WIND	BAR	0-		MP. °C	vis.	ND. 085.	SPE	CIAL								
						COLOR	TRANS DIR	FORC	1		DRY ULB	BULB	CODE	DEPTHS	OBSERY	/ATIONS								
							31	_	-		00	089	7	13										
		1		T			1 31	.  517	7   03	1 1	00		<u> </u>	_			1		T		Τ		T	77
	MESSENG TIME HR 1/1	or ND.	TYPE	DEPTH (m)	т	°C	s °/	SIG	T-AM	SPECIFIC	ALY-XI	IME O	∆ D YN. M x 10 <sup>3</sup>	. SO	OCITY	D <sub>2</sub> ml/		D4=P 0 = 01/I	TOTAL- 19 - 01/		ND3-N yg = 01/1	\$1 O4-\$i	рН	C
																								$\top$
	1	' '	ST	0000	, 0	1978	3460	26	570	001	355	2 0	000	1 14	891		,		ı	,	1	1	,	
	14	0	OBS	0000	0	978	34599	26	70					14	891									
			STE	0010		972	3461	26	571		341		013		+890									
			ST	0020	0	965	3461		573	001	328	9 (	027		889									
	14	0	085	0026		961	34616		574						889									
			STE			873	3464		90		168		1039		+857									
			STO			529	3475		746	000	633	1 0	1057		+727									
	14	0	085 ST0	0052		1503	34762 3479	-	750 761	000	1498		071		•717 •692									
			STE			382	3483		769		1424		083		675									
	14	.Ω	085	0103		378	34830		770	000	727	,,, ,	,005		674									
			STO			372	3484		771	000	406	1 0	1093		675									
			STO	-		366	3484		772		402		104		677									
	14	0	OBS	0155	0	365	3484	2	772					14	677									
			STE	0200	0	360	3484	2	772	000	400	7 0	124	. 14	+682									
	14	0	085	T0207		1359	34839	2.	772						683									
			STO			361	3485		773	000	1398	15 0	144		+691									
	14	0	OBS	0257		361	3485		773						•693									
			STI			1364	3486		773	000	1401	.4 (	164		+701									
	14	·U	08S STI	0307		364	34856 3485		773 7 <b>7</b> 3	000	407	14. 0	204		+702 +715									
	14	. 0	085	T0406		1357	3465		773	000	,+0 /	4 (	1204		+715									
	14	• •	STI			356	3486		774	000	407	9 0	245		+731									
	14	٠0	085	0507		356	3486		774	000		,			+732									
	1-		STI			355	3487		775	000	411	.6 0	286		+747									
	14	+0	085	T0608		355	3486		775	,,,,					748									
			ST			355	3487		775	000	418	0 0	327		+763									
			ST		C	354	3487	2	775	000	1423	36 (	369	14	4780									
	14	+0	085	0814	C	354	34870	2.	775						4782									
			STI		C	353	3487	2	775	000	1432	28 (	1412		+796									
			STI			351	3486		775	000	441	.6 (	1456		4812									
	14	0	OBS	T1021	C	351	3486	5 5.	775					14	+815									

REFERENCE		1= € A	MARSOEN	STATION TIME		ORIGINATO	R"S	DEPTH	MAX. GEPTH	000	WAVE	WEA-	Crono		4	200	
		87	SOUARE	IGMTI	YEAR	CRUISE STAT		MOTTOS	OF	1		THER	TYPE AMI	-	N	ATION	
CODE NO.	1/10	17/10 =	10" 1"	MO DAY HR.1/	10	NO. NUN	IBER		S'MPL'S	DIR.	HGT PER SE	<u> </u>	1-1-				
311157 ML 5	6298N 05	50552W 1	86 60	08 19 13	3 1967			3475	14	33	2		6 2			0006	
			WAT		- BAK	AIR TEMP.	°C VIS.	NO.	SPEC	SIAL							
			COLOR	TRANS. DIR.	OR Imbi	R DRY W	JET CODE	OBS. DEPTHS	OBSERV	ATIONS							
			CODE		DKCE .			1									
				33 S	04 00	0 111 0	183 7	14	L								-
MESSENGR	CAST CARD	DEPTH (m)	τ °C	s */4.	SIGMA-T	SPECIFIC VOLUME	₹ ∆ ¤	sou	DNL	O 2 ml/l	PO 4=P	TOTAL-P	NO2-N	NO3-N	5104-51	рН	S
TIME OF HR 1/10 T	NO. TYPE	Deria uni		1 ,	310/11/2-1	ANOMALY-1107	x 10 <sup>3</sup>	, AETO	OCITY		yg + a1/1	μg = et/l .	μg = σ1/1	µg = at/!	µg + at/l	,	C
FIX 1710																	
	STD	0000	0992	3460	2667	0013799	0000	1 14	896		'						
133	OBS	0000	0992	34596	2667	0013177			896								
133	SID	0010	0987	3459	2668	0013762	0014		896								
	STO	0020	0982	3459	2668	0013733	0028	1 14	895								
133	OBS	0024	0980	34588	2668			14	895								
	STD	0030	0858	3464	2692	0011457	0040	) 14	854								
133	085	0047	0585	34744	2739				749								
	STD	0050	0566	3475	2742	0006762	0058		742								
	STD		0437	3479	2760	0005050	0073		694								
133		0093	0380	34815	2768				673								
	STD	0100	0379	3482	2769	0004258	0085		674								
	STD		0375	3484	2771	0004091	0099		678								
133		0139	0372	34841	2771	0004054	010		678								
120	STD	0150 T0187	0369	3484 34838	2771 2772	0004054	010:		1681								
133	OBS STD		0361	3484	2772	0004019	0126		683								
133		0232	0360	34842	2772	0004017	0120		688								
173	STD		0360	3485	2773	0004020	0146		691								
133		0278	0361	34850	2773			14	696								
	STD	0300	0361	3485	2773	0004017	0166	5 14	700								
133	085	T0367	0361	34858	2773				711								
	STD	0400	0361	3486	2774	0004044	0400		+716								
133		0460	0361	34863	2774				+726								
	STD		0361	3487	2774	0004082	024		+733								
133		0552	0360	34870	2775	2001111	0.10		4741								
	STO		0361	3487	2775	0004116	028	-	+750								
	STO		0364	3488	2775	0004157	032		4768 4774								
133		0736	0365	34887	2775 2775	0004228	037		4782								
	STO		0360	3488 3488	2776	0004228	041		4796								
133	STO	T0918	0352	34875	2776	0004232	0-1		+799								
133	3 OBS ST0		0352	3488	2776	0004305	045		4813								
	STE	_	0352	3489	2777	0004344	049		4829								
	STE		0353	3489	2777	0004391	054		4846								
	ST		0353	3490	2777	0004430	058		4863								
	STE		0353	3490	2778	0004468	063	1 14	4880								
133		T1415	0353	34904	2778			14	4883								
	-00																

REFERENCE	SHIP	LATITU	20	NGITUDE BO	MARSDEN	STATION	TIME YEAR	ORIGINA		DEPTH DEPT		WAVE	WEA	CLOUD			NDDC	
CODE NO.	CODE	-	1/10	1/10	10* 1*	MD DAY	,		ATION JMBER	BOTTOM S'MP		HGT PER S	CODE		1		STATION NUMBER	
31115	7 ML	5628	6N 05	1588W	186 61	08 20	139 196	827 007		3475 1		1		6 6			0007	
					'	ATER	WIND	A ID TEAL	P. °C	1.5	ECIAL	1411	'	, 0.0	1	- 1	0007	
					COLO		SPEED MET	ER DRY	WET COD		VATIONS							
						3	FORCE	0 094	078 8	14								
				7		1	1307   10	0 0 0 0 0 0										
	MESSENG TIME	CAST NO.	CARD	DEPTH (m)	т *с	5 */	SIGMA-T	SPECIFIC VDLUM	DIN. N	SOUND VELOCITY	D 2 m1/1	PO <sub>4</sub> -P	TOTAL-P		NO3-N	SID4-		S
	HR 1/10	0				-		-	x 10 <sup>3</sup>	***************************************		yg = 01/1	µg = 01/1	µg = at/1	µg - 61/1	ы8 - a	71	C
			6 7 0	0000	1,000	2.46		1									1	
	13		STD	0000	1000	3460 3459	2666	0013936	0000									
	1.7	7	STD	0010	0988	3460	2666 2668	0013713	0014	14899								
			STD	0020	0975	3461	2671	0013713										
	13	9	obs	0025	0969	34610				14892								
			SID	0030	0870	3464	2690	0011636	0040									
		_	STD	0050	0559		2742	0006754	0058									
	13	9	085	0051	0547	3474				14734								
			SID	0075	0447	3479 3482	2759	0005155										
	13	0	OBS	0101	0379		2768 3 2769	0004278	0085	14675								
	4.5	7	STD	0125	0375	3484	2771	0004093	0096									
			STD	0150	0371	3484	2771	0004077										
	13	9	OBS	0152	0371	3484			0-00	14679								
			STD	0200	0363	3485	2772	0004001	0126									
	13	9	OBS	T0205	0362					14684								
			510	0250	0362		2773	0003998	0146									
	13	9	085	0255	0362			0004031	01//	14693								
	13	0	SID	0306	0365		2773	0004031	0166	14701								
		,	STD	0400	0363		2774	0003991	0206									
	13	9	085	T0407	0363			0003771	0-00	14718								
			SID	0500	0363		2775	0004033	0246	_								
	13	9	085	0510	0363					14736								
			STD	0600	0363		2774	0004142	0287									
	13	9	085	0612	0363			0001333		14752								
			STD	0700 0800	0363 0364	3487 3488	, 2774 2775	0004232										
	13	9	OBS	0816	0364			0004309	0312	14787								
		•	STD	0900	0360		2775	0004312	0419									
			STD	1000	0357	3488	2776	0004360	0458	14815								
	13	9	OBS	T1028	0356					14819								
			STD	1100	0356		2776	0004375										
			SID	1200	0355		2777	0004412										
			STD	1300 1400	0354 0354	3490 3490	2777 2778	0004448										
			STO	1500	0353		2778	0004492										
	13	9	OBS	11517	0353			3004327	0080	14900								
		-	000		0000	3.70				4 7 7 0 0								

REFERENCE	SHIP			- 5	MARSDEN	S	TATION T	ME			ATOR'S		DEPTH	MAX. DEPTH	000	WAVE	AI C	WEA-	CLOUD			ATION	
CTRY ID.	CODE	LATITUI		MGITUDE HON	SOUARE	1	(GMT)	0.1/10	YEAR		HOITATE		10 BOTTOM	OF S'MPL"	1	HGT PER		CODE	TYPE AMI		NI	UMBER	
			1/10	1/10	10° 1°		DAY H		10/7			-	21.76			1	2011		3 1	_		0008	
31 115	7 ML	5628	ON   0	50545W	186 60	ATER		131	1967	A ID TE		1	3475	15	20	111			1 211	1		0008	
					COL			SPEED	METE	0-	WET	CODE	NO.		CIAL 'ATIONS								
					COL	36	n) DIR.	FORCE	tmbs	a) BULB	BULB		DEPTHS										
							19	507	17	0 094	083	7	14										
	MESSENG	A CAST	CARD							SPECIFIC VOLU	ME S	ΛΩ YN. M.	sou	DNI		PO4-	P TO	TAL-P	NO <sub>2</sub> -N	NO3-N	\$1.04-\$1		5
	TIME	of NO.	TYPE	DEPTH lm1	T °C		s %.	SIGA	AA-T	ANDMALT-XI	07 D	YN. M. X 10 <sup>3</sup>	VELO		O 2 m1/1	yg - 01	21 y	g = ot/L	yg - 01/1	μg - σ1/l	µg - 01/1	рН	c
	HR 1/1	D		-		+																	П
			CTD	0000	100	a 1	3460	26	n4	001406	.7 0	000	144	90Z		1	1				)		١.,
	13	. 1	STD	0000	100		34597	26		001400	, ,	000		902									
	13	, 1	STD	0010	099		3460	26		001385	2 0	014		898									
			STD	0020	098		3460	26		001363	1 0	028	14	895									
	13	31	OBS	0024	097		34598	26						893									
			STD	0030	085		3464	26		001138	3 0	040		850									
	13	31	OBS	0047	058		34724	27						748									
			STD	0050	056		3473	27		000691		059		742 701									
			STD	0075	045		3479 34626	27		000523		074		601									
	13	5 1	OBS STD	0095	039		3483	27		000433	. n	086		600									
			STD	0125	038		3464	27		000417		1096		680									
	13	3.1	085	0142	037		34847	27			_	- , •		680									
			STD	0150	037		3465	27		000403	9 0	107	141	681									
	13	31	085	T0191	036	8 :	34858	27	73				14	685									
			STD	0200	036	7	3486	27	73	000395	2 0	126	14	686									
			STD	0250	036		3485	27		000398	16 0	1146		692									
	13	31	085	0273	036		34851	27						696									
	13	31	085	0284	036		34855				_			697									
			STD	0300	036		3486		74	000396	7 (	1166		700									
	13	3 1	OBS	T0378	036		34865			000400	7 (	206		713 716									
			STD	0400	036		3487	27	74	000400	,,	1200		727									
	13	1	08S STD	0469 0500	035		34865 3487	27		000406	2 0	246		732									
	13	3.1	OBS	0563	035		34664		74					742									
		-	STD	0600	035		3467		74	000413	36 (	287		748									
			STD	0700	035		3487		75	000420		329	14	764									
	13	31	085	0760	035	6	34868	27	75					774									
			STD	0800	035	5	3487	27	75	000424		371		780									
			STD	0900	035		3488		76	000423	38 0	1414		795									
	13	31	OBS	10967	035		34880		76		_			806									
			STD		035		3488		76	000426		456		812									
			STO		035		3489		77	000434		)499 )543		846									
			STD		035		3489 3490		77	000437		1587		863									
			STD		035		3490		78	000447		631		880									
			STO		035		3491		78	00045		1676		898									
	1	31	085	т 1505	035		34907		78					899									
	1.		003	, 1000	0,00	,		- '															

REFERENCE	- SHIP		] .		E M	ARSDEN OUARE	STATION TI			ORIGINA			DEPTH	MAX. OEPTH	0.00	WAY		WEA-	CLOUD		-	1000	
CTRY ID.	CODE	LATITU	1/10	ONGITUDE	INDC:		MO DAY HI	YEAR	CRUISE NO.		TATION		TO BOTTOM	0.0	00		PER SE	THER	CODES			UMBER	
	-															1	PER 38	-	TYPE AM	-			
3111157	/ ML	5523	ON   C	150460W	18	36 50 WA		93 196		AIR TEN			3475	14	12	2	- 1	1	1 2	1	-	0009	
						COLOR		SPEED MA	KO.	DRY T	WET	VIS.	NO. 085.	SPE	CIAL								
						CODE	(m) DIR.			ULB	BULB	-	DEPTHS	OBSEKV	A HORS								
							19	511 1	40 1	24	101	7	14										
	MESSENGE	CAST	CARD				T .		SPECIEIO	C VOLUA	, E \$	Δο	501	סאט		T.,			NO. N	NO N			
	NR 1/10	of NO.	TYPE	DEPTH	m1	T °C	s */	T-AMDIZ		ALT-X10	7 01	∆ D (N, M (10 <sup>3</sup>	. VELC	DCITY	O 2 m1/1		04=P - o1/I	TOTA L - P yg = 01/1	NO2-N µg - ot/l	NO3-N µg - ol/l	\$1 O4-\$1 ug - 01/1	pН	Ċ
	FIR 1/10								+			. 10	+	-		+							H
			STO	000	0	1016	3456	2660	00.1	448	5 0	uoo	1 14	904		[	ı		l				
	19	3	085	000		1016	34556	2660	001	. 440.	, ,	-00		904									
		-	STO			1010	3458	2663	003	4234	4 0	014		904									
			STO			1004	3459	2664		408		029		903									
	19	3	085	002		1002	34592	2665						903									
			STE	003	0	0832	3459	2692	001	143	8 0	041		841									
	19	3	085	004		0433	34587	2744						685									
			STO			0431	3459	2745		646.		059		684									
		_	STO			0398	3473	2760	000	0510	0 0	074		676									
	19:	3	OBS	009		0380	34816	2768	0.00					674									
			STO			0380	3482 3484	2769 2770		426		085		674									
	19	2	OBS	014		0376	34854	2772	000	1412	1 0	U96		678									
	17.	9	STO			0375	3485	2771	0.00	4039	9 0	106		681									
	19	3	OBS	T019		0366	34848	2772	000	, ,,,,,	, ,	-00		684									
			STO			0365	3485	2772	000	1984	4 0	126		685									
	19:	3	085	024	3	0360	34856	2773						690									
			STO			0361	3486	2774	000	391:	3 0	146	14	691									
	19	3	OBS	028		0365	34862	2773						700									
			STO			0364	3486	2774	000	1396	5 0	166		701									
	19	3	085	1038		0360	34869	2774	000	305		105		713									
	19:	2	STI OBS	040		0360	3487 34871	2775 2775	000	13959	9 0	205		716									
	17.		STE			0360	3487	2775	000	403	1 0	245		733									
	19	3	085	057		0361	34875	2775	000		_ 0	~ - >		745									
		-	STO			0360	3488	2775	000	409	4 0	286		749									
			STO	070	0	0356	3488	2775	000	412	8 0	327	14	764									
	19	3	OBS	076		0355	34876	2776					14	774									
			STO			0355	3488	2776		417		368		780									
	1.0		STE			0355	3488	2776	000	1425	0	410		797									
	19	3	085	T095		0355	34884	2776	000	16.77	2 0	4. 5. 3		806									
			STO			0355	3489 3489	2777 2777		)426: )434:		453 496		814 821									
			STO			0355	3489	2777		)494: )442		496 540		847									
			STO			0354	3490	2778		)442.		584		864									
			STO			0354	3490	2778		450.		529		881									
	19:	3	085	T144		0354	34904	2778	000		- 0	- 2 7		888									

1CE	SHIP				# MAR	SDEN	STATION TH			DRIGINAT	DR*S	DEPTH	MAX.	000	WAVE SERVATIONS	WEA			1	ODC	
ID.	CODE	LATITUI	1/10	ONGITUDE 1	10*		MO DAY HE		EAR		TIDN	TO EDITOM	DF S'MPL*	1 00	THGT PER S	0001				A TION JAMBER	
						1			0 / 7												
157	7 ML	5628	BNIO	51105W	186	61 WAT		11 1º	967	B27 010	. °c	3475 NO.	18	30	4	- 1	2 8	3 1	1	0010	
						COLOR	TRANS. DIR.	SPEED	BARO-	DRY	WET CODE	One 1		CIAL							
						CODE	1m)	FORCE	(mbs)		BULB										
		, , ,					28	S05	120	088	067 7	14	L.,_								
	MESSENGR TIME C		CARD	DEPTH (n		"C	s */**	SIGMA	- T	SPECIFIC VOLUME		SOU	DNL	D <sub>2</sub> ml/	PO4-P	TOTAL-P			SI O4-SI	pH	S
	HR 1/10	NO.	TYPE		`					ANOMALY-1107	X 10 <sup>3</sup>	VELO	CITY		µg = 01/1	µg • a1/1	μg - αl/	yg + o1/I	yg - a1/i		c
			SID			0875	3455	268		0012343	0000		852								
	211	l	085	0000		0875	34547	268		001.110	0.1.1		852								
			STD			0875	3455	268		0012310	0012		854								
			STD			0875	3456	268		0012278	0025		855								
	211	,	085 085	0030		0875 0875	3457 34568	268 268		0012252	0037		857 857								
	211	L	STD			0590	3469	273		0007499	0057		751								
	211	1	OBS	0059		0490	34738	275		0001477	00)		712								
			STO			1454	3478	275		0005305	0073		701								
			STO			0409	3484	276		0004410	0085		687								
	211	1	085	0119		385	34659	277					680								
			STO	0125		0382	3486	277		0004026	0095	14	680								
			STD		) (	372	3485	277	2	0003994	0105	14	680								
	211	1	QBS	017	7 (	366	34846	277	2			14	681								
			STO			3367	3485	277		0004002	0177		686								
	21	1	OBS	1023		368	34860	277					692								
			STO			3366	3486	277		0003956	0145		694								
	211	1	OBS	029		0364	34862	277		00000075	01.5		700								
	2.1		STO			0365	3486	277		0003975	0165		701								
	21	L	OBS	035		0368	34868	277		0004034	0.704		711								
	21	,	STO			0365	3487 34865	277		0004034	0205		727								
	21	1	OBS	T0466		0361	3487	277 277		0004073	0246		732								
	21	1	OBS	058		0357	34864	277		0004013	0240		745								
	21.	1	STO			0357	3487	277		0004138	0287		748								
	21	1	085	0699		0358	34868	277			0 = 0 .		765								
		•	STO			0356	3487	277		0004210	0328		765								
			SIC			0356	3487	277		0004266			760								
			STO	0900	) (	0353	3487	277	5	0004312	0414	. 14	796								
	21	1	OBS	093	7 (	0352	34869	277	5			14	802								
			510			0353	3487	277		0004388			613								
			STE			0353	3487	277		0004469	0501		830								
	21	1	OBS	T118		0354	34873	277					844								
			STO			0354	3487	277		0004533			847								
			STE			0354	3468	277		0004579			864								
			STO			0354	3489	277		0004618			881								
			STO			0355	3489 3491	277		0004655			940								
	21	1	0BS	T178		0355	3491	277		0004755	0402		946								
	21	1	VDS	11/6	4	V 3 2 3	34701	211	0			1.4	340								

CE	SHIP	LATITU	Dr.	LONGITUDE	100	MARS		STATIO	N TIM		EAR		ORIGINAT		1	DEPTH	MAX, DEPTH	OR	WAVE		WEA-	CLO				NDDC TATION	
D.	CODE	LAIITU	1/10	* '1/10	INDC	10*			Y HR.		LAX	CRUISE NO.		MBER	8(	DTTOM	OF S'MPL'S			R SEA		TYPE	- 1			UMRER .	
157	ML	5630		050590w	1	186		08 25			967	B27	011		12	475	11	32	2				6			0011	
1 00 1	HE	1 2030	0.4	000090	1 1	100	WAT		WI		BARO		AIR TEMP	. °c		NO.			14 1	1	1	1 2	0 1		1	0011	
							COLOR	TRANS.	OIR,	SPEED	METE	R (	ORY	WET CO	12"	OBS.	QBSERV	ATIONS									
						-	CODE	tm)		FORCE	(mbs	) B	ULB	BUTB	_												
									32	512	060	0 1	00	089		13										-	_
	MESSENC		CARD	DEPTH	(m)	т	°C	5 %	.	SIGMA	\_T		VOLUM	ξ Δ DYN.	D		DND	D <sub>2</sub> ml/	PO	ı~P   1	TOTA L-P	ND2~	-N	NO3-N	\$104-5	рΗ	
	HR 1/1		TYPE	OLT III	0111	·	•	'		310 111	,_,	MOM	ALY-X107	x 1	3	VELC	CITY	02 11117	µ9 ~	01/1	Nto - gu	h8 - a;	1/1	yg = 6t/1	уg - al/l	pn	1
																											T
		, ,	ST	000 ' a	0	0	863	345	4	268	4	001	2216	000	00	14	847		'	- 1		•					ľ
	13	30	OBS	000	0	0	863	345	40	268	4					14	847										
			ST	D 001	0	0	859	345	4	268	4	001	2174	00	12	14	847										
			ST				855	345		268	-	001	2134	002	4		847										
	13	30	OBS				852	345		268							848										
			ST				803	345		269			1175	00			830										
			ST				541	347		274		000	6768	005	4		731										
	13	30	OBS				511	347		274		000	E 1 70	006			720										
			ST ST				451 405	348		275 276			)5123 )4294	008			685										
	13	3.0	085				399	348		277		000	,76,77	001	, ,		684										
		, ,	ST				396	348		277		000	4077	009	91		666										
			ST	-			391	348	7	277		000	4050	010	1		688										
	13	30	OBS			0	390	348	72	277						14	689										
			ST	0 020	0	0	381	348	7	277	2	000	3988	01	21	14	692										
	13	30	OBS				379	348		277							693										
			ST				370	348		277		000	3967	01	•1		695										
	13	30	OBS				368	348		277							697										
		2.0	ST				367	348		277		000	04014	016	ΣŢ		702 705										
	1.	30	085 ST				367 363	348		277		000	4058	020	1		717										
	13	3.0	085				362	348		277		000	,40,50	021	, ,		721										
	Δ.		ST				360	348		277		000	)4113	024	. 2		732										
	13	30	OBS				359	348		277					_		737										
			ST				359	348		277		000	4173	041	34		749										
	13	30	085		16	0	359	348	64	277	4					14	755										
			ST	D 070	00	0	357	348	7	277		000	4184	00	26	14	764										
			ST	0 080	0	0	354	348	7 '	277	5	000	)4234	030	86	14	780										
	13	30	OBS				353	348		277							788										
			ST				352	348		277			4280				796										
			\$T				352	348		277		000	4339	04	00		812										
	13	30	085	T106	0	0	352	348	77	277	6					14	822										

REFERENCE	E CLAIR			-5	MARSOEN	STATION TH		ORIGINATO	R°S	DEPTH DEPTH		WAVE ERVATIONS	WEA-	CLOUD			ODC	
CIRY IO.	SHIP	LATITUE		NGITUDE E	SQUARE	(GMT)	YEAR	CRUISE STAT		TO OF	1	HGT PER SE	CODE	TYPE AM		N S1	UMBER	
	-		1/10	1/10 =		MO DAY HR					1		-	7 3			0012	
31 115	57 ML	5630	8N   05	0555W	186 60 WAT		35 1967	A ID TEAAP		3475 15	10	2	1	1 113	1	1	0012	
							SPEED MART	0-	VIS.	OBS.   OBCED	CIAL							
					CODE	Imi OIR.	OR (mb	B) BULB BI	IL8	DEPTHS								
						16	503 03	0 089 0	83 7	14								
	MESSENG	CAST	CARD					SPECIFIC VOLUME	₹ ∆ 0 DYN, M.	SOUND	O2 ml/1	PO4-P	TOTAL-P	NO2-N	NO3-N	SI 04-Si	рН	3
	HR 1/10	of NO.	TYPE	DEPTH (m)	1 °C	s %.	SIGMA-T	ANOMALY-X107	X 10 <sup>3</sup>	VELOCITY	0.2 11(1)	μg - α1/I	µg - a1/1	ug - a1/1	μg - at/l	μg - a1/l	pri	č
	11.5	-					_											$\Box$
		1	STD	0000	0894	3455	2680	0012577	0000	14859		'						
	13	5	085	0000	0894	34554	2680			14859								
			STD	0010	0884	3456	2682	0012422	0012	14857								
			STD	0020	0875	3456	2684	0012267	0025	14855								
	13	5	085	0025	0870 0767	34564 3452	2684 2697	0011032	0036	14854								
			STD	0050	0456	3435	2723	0008533	0056	14692								
	13	15	OBS	0051	0445	34340	2724	0000000	00 )0	14607								
			STD	0075	0430	3466	2751	0005948	0074	14689								
			STD	0100	0414	3487	2769	0004232	0087	14689								
	1.3	15	OBS	0101	0413	34880	2770			14689								
			STD	0125	0411	3489	2771	0004081	0097	14692								
			STD	0150	0409	3489	2771	0004087	0107	14696								
	1.3	15	085	0152	0409 0402	34895 3490	2771 2772	0004004	0128	14696								
	13	. 5	STD 085	10202	0402	34898	2772	0004004	0120	14701								
		,	STD	0250	0386	3489	2773	0003943	0148									
	1.3	15	OBS	0252	0385	34886	2773			14702								
			STD	0300	0373	3487	2774	0003970	0167	14705								
	13	15	OBS	0302	0372	34873	2774			14705								
			STD	0400	0361	3487	2774	0003971	0207	14716								
	13	35	OBS	T0401	0361	34868 3487	2774 2775	0004046	0247	14717								
	13	1.5.	STD OBS	0500 0501	0360	34870	2775	0004040	0241	14733								
	1.	, ,	STD	0600	0360	3487	2775	0004117	0288									
	13	35	OBS	0602	0360	34872	2775			14749								
		_	STD	0700	0358	3487	2775	0004166	0329									
			STD	0800	0356	3488	2775	0004213	0371	14781								
	13	35	OBS	0803	0356	34876	2775		0/.1.	14781								
			STD	0900	0354	3488	2776	0004268	0414									
	13		STD OBS	1000	0351	3488 34877	2776 2776	0004314	0457	14813								
	1.3	7.7	STD	1100	0352	3488	2776	0004384	0500									
			STD	1200	0353	3488	2776	0004477	0544									
			STD	1300	0354	3489	2777	0004496	0589	14864								
			STD	1400	0355	3490	2777	0004515	0634									
			STD	1500	0356	3491	2778	0004564	0680									
	13	35	OBS	T 1500	0356	34906	2778			14899								

														_											
REFE	RENCE	1					_≝ M	ARSDEN	IT NOITATE	AA E		0	RIGINA	TOR'S		DEPTH	DEPTH		WAVE ERVATIONS	WE				NDDC	
CTRY	10.	CODE	LATITU	30		ITUDE	NDCTR	DUARE	IGMTI		YEAR	CRUISE		ATION		BOTTOM	DF			CDS				TATION	
CODE	NO.	10001		1/10	•	1/10	= 1	0, 1,	MO DAY H	R.1/10		NO.		UMBER			3 mrL		HGT PER :	EA	137E JA	-	-		
31	1157	7 ML	5635	5 N	050	535W	1	86 60	08 27 1	145	1967		013			3475	15	35	4	1	4 8	3		0013	
								WA	TER V	IND	BAR	D- A	IR TEM		VIS	ND.	SPI	CIAL							
								CDLOR		SPEED	MET	ER D	RY	WET	CODE	OBS. DEPTHS		ZATIONS							
								CODE	IM1	FORCE			-		+	-									
									14	504	14	0 1	00	089	7	14	<u> </u>						,		
		MESSENGI	CAST	CAR						1		SPECIFIC	VOLUA	AE S	Δο	SD	UND	010	PO4=P	TOTAL-	-P NO2-N	ND3~N	\$104-5	il	5
		TIME	OT ND.	TYP		DEPTH	(m)	T C	s °/	31G	MA-T	ANOMA	-LYX10		YN. M x 10 <sup>3</sup>	VEL	OCITY	0 2 ml/l	yg - α1/1	yg + at.	/1 µg - a1/				č
		HR 1/10			-		-		+	+-				_		_				1		1			11
					_	000	_	0071	3453	7.6	81	001	243	ا د	0000	14	850		1	ı	1	1	1	1	11
				-	TO	000		0871 0871	34526		81	001	247	,	,000		850								
		14	5	OB.		000		0872	3452		81	001	251	5 (	012		852								
					TO TD	002		0873	3451		80		2591		0 2 5		854								
		14	6	OB		002		0873	34511		80	001					855								
		14	,		10	002		0778	3456		98	001	089	5 (	037		820								
					TD	005		0491	3471		148		620		054		711								
		14	5	OB.		005		0480	34719		750					14	707								
			-		TD	007		0437	3481	27	762	000	490	0 (	0068	3 14	+694								
					TD	010	0	0411	3487	27	769	000	419	0 (	079	9 14	688								
		14	5	QB	5	010	0	0411	34872	27	769						+688								
					TD	012	5	0414	3489	27	771	000	410		0089		+693								
				\$	TO	015	0	0416	3490		771	000	408	1 (	0100		+699								
		14	5	08	S	015	1	0416	34901		771						+699								
				S	TD	020	0	0404	3489		772	000	406	7 (	0120		+702								
		14	5	QB		T020		0402	34891		772						4702								
					TD	025		0388	3488		773	000	400	9 (	0140		4703								
		14	5	OB		025		0387	34884	_	773	200	4.01	_ ,	21//		4703 4705								
					TO	030		0374	3487		773 773	000	401	2 (	0160		+705								
		14	5	ОВ		030		0373	34865 3487		774	000	400	6 1	0200		4718								
					TD	040		0365			774	000	400	0 1	) L () (		4718								
		14	5	OB		050		0364	34872 3486	_	774	000	410	8	024		4732								
		2.4	-		TD	050		0360			774	000	720	,			4733								
		14	2	08		060		0362		_	774	000	417	5	0284		4750								
		1.4	. 6	08	GTD	060		0362			774	000		-			4751								
		14	2		STO	070		0360			775	000	421	4	0324		4766								
				_	STD	080		0357			775		427		036		4781								
		14	. 5	0.8		080		0357			775						4782								
		1.4	7.7		TD.	090		0355			775	000	432	3	041		4797								
					STD	100		0353			775		1437		045.		4813								
		14	.5	08		10		0353			775					1	4814								
					STD	110		0354			776	000	1443	1	049	7 1	4830								
					STD	120		0354		2	776	000	448	2	054.	2 1	4847								
					570	130	00	0355	3489	2	776	000	454	1	058	7 1	4864								
					STD	140		0355	3489	2	777	000	459		063		4881								
					570	150	00	0356	3489	- 2	777	000	1465	1	067		4898								
		14	5	QB	35	T15	12	0356	34895	2	777					1.	4900								

REFERENCE					E E M	ARSDEN	S	(GMT)	IM E			ORIGIN	ATOR*		OEFTH	M.A. OEPI			AVE	WEA	CLOUG			NOOC	
CODE NO.	CODE	ATITUOE		GITUOE 1/10	0 2					YEAR	CRUISE NO.		OIT AT		10 80110#	0.0	· [		/A TIONS	THER	COOES		S N	LMBER	
						0" 1"		DAY			1	_		^					T PER SEA	-	TYPE A AA				
31 115	/ ML   5	6325N	05	1010W	{ T	86 61	08 ATER		187	1967		01			3475	1	5 1	9 1	1 1	1	6 8	1		0014	
						COLO	1		SPEED	BAR	0	AIR TE	WE1	- VIS.	NO. OBS.	5	PECIAL								
						COO			FORG	1212		BULB	BUL		OEPTH!	OBSE	RVATION	S							
								05	_	<del></del>	0 1	128	11	1 7	14										
	MESSENGR C						+		1						1	1	Т	٠,							7
	TIME OF		ARO YPÉ	DEPTH I	(m)	1 °C		s °4.	SIG	MA-T		C VOLU	ME 02	₹ Δ D OYN. M x 10 <sup>3</sup>	. SC	LOCITY	0 2 m		PO4-P ug - a1/I	10TAL-P	NO2~N µg - at/l	NO3-N	\$1 O4-\$i	pH	0
	HR 1/10												-	X 10 <sup>3</sup>	- 10				pg - 6//1	pg - 0///	pg - 0171	yg - oi/l	pg = 6171		-
	1 1								1				- 1												1
	3.0.7		STD	000		0902		1446		71	001	1341	0	0000		4861									
	187		BS	000		0902		34458		71	001	1211	7	001		4861									
			STD	001		0887		447 450		74		1311 1269		0013 0026		4857 4854									
	187		BS	002		0865		4520		82	00.	207	*	0020		4852									
	101		STD	003		0786		1455		96	00	1108	2	0038		4823									
			STD	005		0540		3468		740		0698		0056		4731									
	187	01	BS	005	1	0531	3	4681	27	141					14	4727									
			STD	007		0456		479		158		0525		0071		4702									
			STD	010		0407		486		169	000	0423	9	0083		+666									
	187		BS	010		0406		4861		69			_			4686									
			STD	012		0405		1487		70		)416		0094		4690									
	187		5 T D 8 S	015		0404		3488 34881		71 71	000	0410	9	0104		4693									
	107		STD	020		0392		488		72	000	0401	я	0124		4694 4697									
	187		BS	T020		0391		4882		72	000	3401		0127		4697									
			STD	025		0382		487		73	000	0402	2	0145		4701									
	187	01	BS	025	6	0381	3	4873	27	73					14	4701									
			STD	030		0375	_	487		73	000	402	6	0165		4706									
	187		BS	030		0374		4869		73						4706									
	1.0=		STD	040		0369		487		773	000	0407	0	0205		+720									
	187		BS	040		0368		4867		73						4721									
	187		STD BS	050 050		0364		1487 14868		774	000	)409	g	0 < 46		4734									
	101		STD	050		0362		487		74	000	)415	4	0287		4735 4750									
	187		BS	T061		0362		4871		774	300	, +1 )	7	0201		4752									
			STD	070		0360		487		775	000	0419	9	0329		4700									
			STD	080		0357		1487		775		1424		0371		4781									
	187	01	BS	080	7	0357	3	4874	27	75						4782									
		:	STD	090		0355	3	488	27	775	000	)429	2	0414	14	4797									
			STD	100		0354		488		76	000	)434	8	0457		+813									
	187		BS	100		0354		34877		76						+813									
			STD	110		0355		488		776		1442		0501		4831									
			STD	120 130		0357		489		776		1444		0545		4848									
			STD	140		0358		3489 3490		76 77		]454 }456		0>90 0636		4865 4883									
	187		BS	1147		0360		14905		777	000	7420		0036		+896									
	107	0	03	1741		0300	-	7700	21	11					1.	4070									

New York   Court   C																						
NO   COSE   1/10   1/		SHIP	1 4 717/1	65 16		MARSOEN	4 !	STATION TI						Utrim   area			WEA				NODC	
1157 ML		COOE								[UKUI			В	D T T D				c				
Wattr   Wild   Color   Mark   Color   Wattr    115	7 Ms	5634							67 R2	7 01	5	12		1						0015		
COLON   Internal Colo	1117	II ME I	7034	014 ; 0.	00040#				IND I	, , ,			1	NO.		141 1	1 50	11 718	1	- 1	0015	
COST						co	LOR TR	aio 2na	SPEED N				one.	OBS. OBSES								
STD   OD   OB   OB   OB   OB   OB   OB   O						co	OE	1m)	FORCE				10	JEPINS -								
STD   ODG   OBS   ODG   OBS   ODG   OBS   ODG							21	520	078	089	089	6	14									
STD   OOOU   O.   O.   O.   O.   O.   O.			CAST	CARO	0.50714 4-1			5 9/	0.0	_ SPECI	IFIC VOLU		0	SOUNO		PO <sub>A</sub> -P	TOTAL	NO2-N	NO3-N	SI O4-SI		
STD			NO.	TYPE	Oerin (m)	, ,		3 70.	SIGMA-	ANG	DM ALY-E1	Q7 UTN	. M.	VELOCITY	U2 ml/						pH	
130									1					1				1	·			
130		1	1	SID	0000	088	1	3453	2680	00	1252	9 00	00	14854		1	1	1	1	1	1	
STD   0020		130	)																			
130				SID		088			2680	00	1254	8 00	13	14855								
STD   0030   0842   3455   2688   0011888   0037   14844     STD   0050   0550   34712   2741     00682   14735     STD   0075   0462   3479   2757   0005338   0071   14704     STD   00700   0408   3446   2769   0004272   0083   14687     130   085   0101   0407   34860   2769   0004272   0083   14687     130   085   0149   0404   3488   2771   0004104   0094   14690     130   085   0149   0404   3488   2771   0004048   0104   14693     130   085   01017   0394   34886   2772   0004033   0124   14697     130   085   0197   0394   34886   2772   0004033   0124   14697     130   085   0243   0378   34867   2772   0004013   0124   14697     130   085   0243   0378   34867   2772   0004013   0124   14697     130   085   0290   0379   34883   2774   0004012   0144   14699     130   085   0390   0377   3488   2774   0003972   0164   14707     130   085   0364   34868   2774   0003972   0164   14707     130   085   0364   34868   2774   0004016   0204   14715     STD   0400   0364   34868   2774   0004016   0204   14715     STD   0500   0362   3487   2775   000417   0258   14733     130   085   0560   0360   3487   2775   0004217   0328   14766     STD   0600   0360   3487   2775   0004217   0328   14766     STD   0600   0359   3487   2775   0004217   0328   14765     STD   085   0745   0360   3487   2775   0004217   0328   14766     STD   0800   0359   3487   2775   0004217   0328   14766     STD   085   0745   0360   3487   2775   0004271   0370   14782     STD   085   0745   0360   3487   2775   0004271   0370   14782     STD   085   0745   0360   3487   2775   0004271   0370   14782     STD   085   0745   0360   3487   2775   0004271   0370   14782     STD   085   0745   0360   3487   2775   0004271   0370   14782     STD   1000   0357   3488   2776   0004557   0911   14832     STD   1000   0357   3488   2776   0004557   0911   14860     STD   1400   0350   3489   2777   0004557   0971   14860     STD   1400   0350   3499   2777   0004557   0971   14885										00	1256	2 00	25									
STD   0050   0550   34717   2741   0006821   0056   14735		130	)																			
130																						
STD   0075		1.04								0.0	00682	1 00	56									
STD		130	)	_																		
130							_															
STD   0125   0406   3488   2771   0004104   0094   14690		130	,							U	10421	2 00	00									
130		150	,							0.0	00410	4 00	94									
STD   0150		130	1								70 410	7 00	, ~									
130		150	,							0.0	00404	8 01	0.4									
STD   0200   0392   3488   2772   0004033   0124   14697   14698		130	)							-		0 0-	•									
130										0.0	00403	3 01	24									
130		130	)			037	8	34867	2772					14698								
STD   0300   0377   3488   2774   0003972   0164   14707				STD	0250	037	8	3487	2773	0.0	0401	2 01	44	14699								
130		130	)	085	0290	037	9	34883	2774					14706								
STD				STD						0.0	0397	2 01	64									
130		130	)																			
STD   0500   0362   3487   2774   0004097   0245   14733   130   085   0560   0360   34867   2774   14742   14743										0.0	00401	6 02	04									
130		130	)	-																		
STD   0600   0360   3487   2775   0004132   0286   14749     STD   0700   0360   3487   2775   0004217   0328   14766     130   085   0745   0360   34872   2775   14773     STD   0800   0359   3487   2775   0004271   0370   14782     STD   0900   0358   3487   2775   0004329   0413   14798     130   085   0940   0357   34875   2775   14805     STD   1000   0357   3488   2776   0004364   0456   14815     STD   1100   0358   3488   2776   0004454   0501   14832     STD   1200   0359   3488   2775   0004573   0346   14849     STD   1300   0359   3489   2776   0004573   0571   14866     STD   1400   0360   3490   2777   0004573   0571   14885		120	,							00	00409	7 02	45									
STD   0700   0360   3487   2775   0004217   0328   14766   14773   14866   14773   14885   14766   14773   14885   14766   14773   14774   1		130	)							0.0	10413	2 (2)	0./									
130																						
STD 0800 0359 3487 2775 0004271 0370 14782 STD 0900 0358 3487 2775 0004329 0413 14798 130 08S 0940 0357 34875 2775 14805 STD 1000 0357 3488 2776 0004364 0456 14815 STD 1100 0358 3488 2776 0004454 0501 14832 STD 1200 0359 3488 2775 0004543 0546 14849 STD 1300 0359 3489 2775 0004573 0591 14866 STD 1400 0360 3490 2777 0004573 0537 14883		130	)							00	70421	, 05	20									
STD 0900 0358 3487 2775 0004329 0413 14798  130 085 0940 0357 34875 2775 14805  STD 1000 0357 3488 2776 0004364 0456 14815  STD 1100 0358 3488 2776 0004454 0501 14832  STD 1200 0359 3488 2775 0004543 0546 14849  STD 1300 0359 3489 2776 0004557 0591 14866  STD 1400 0360 3490 2777 0004573 0637 14885		150		_						0.0	00427	1 03	70									
130							-					-										
STD 1000 0357 3488 2776 0004364 0456 14815 STD 1100 0358 3488 2776 0004454 0501 14832 STD 1200 0359 3488 2775 00045543 0546 14849 STD 1300 0359 3489 2776 0004557 0591 14866 STD 1400 0360 3490 2777 0004573 0637 14883		130	)																			
STD 1200 0359 3488 2775 0004543 0546 14849 STD 1300 0359 3489 2776 0004557 0591 14866 STD 1400 0360 3490 2777 0004573 0637 14883										0.0	00436	4 04	56									
STD 1300 0359 3489 2776 0004557 0291 14866 STD 1400 0360 3490 2777 0004573 0637 14883				STD	1100	035	8	3488	2776	00	00445	4 05	01	14832								
STD 1400 0360 3490 2777 0004573 0637 14883				STD				3488		00	0454	3 0>	46	14849								
130 085 11472 0360 34901 2777 14895										0.0	00457	3 06	37									
		130	)	085	T1472	036	0	34901	2777					14895								

REFERENCE SHIP		T-41	MARSDEN SOUARE	STATION TI		ORIGIN		DEPTH	MAX. OEPTH	08	WAVE SERVATIONS	WEA- THER	CLOUP			NODC
CODE NO. CODE	1/10 LC	MOITUDE FOR	10° 1°	MO DAY H	YEAR		TATION	BOTTOM	OF S'MPL"		HGT PER SEA	CODE	TYPE AM	-	N	UMBER
		51000W	186 61		130 196		6	3475	35	16	2	50	6 8			0016
31 1157  ML   56	300N 0	31000W	WA		UND	A IP TE					-	1 20	1 0 1 0	1	1	0010
			COLOR		SPEED ME	TER ORY	WET COD	. OBS. 1		CIAL						
			CODE	TRANS. DIR.		bs) BULB	anra	DEPTHS	04001111							
				06	515 0	40 100	094 6	19								
MESSENGA C	ST CARD	DEPTH (m)	t tc	s ·/	SIGMA-T	SPECIFIC VOLU		SOL	IND	O2 ml/	PO4-P	TOTAL-P	NO2-N	NO <sub>3</sub> -N	\$1 O4-\$1	рН
HR 1/10 T	O. TYPE					ANOMACIEN	x 10 <sup>3</sup>	VELC	CIIT		μg - α1/I	μg + at/l	υg + οΙ/l	µg + a1/1	yg = ot/l	
						1									ł	1
,	STD	0000	0887	3451	2677	001281	3 0000		856							
130	OBS	0000	0887	34508	2677	201177	0.001		856							
	SID	0010	0884	3451	2678	001277			856 857							
120	STD	0020	0880	3451 34508	2678 26 <b>7</b> 9	001274	7 0020		857							
130	OBS	0026	0878 0805	3455	2693	001135	2 0038		830							
	STO STD	0050	0519	3473	2746	000636			723							
130	085	0053	0487	34748	2751	000000	, 000		710							
100	STO	0075	0435	3480	2761	000495	4 006		693							
	STD	0100	0398	3484	2768	000429			682							
130	085	0104	0394	34847	2769			14	681							
	STD	0125	0394	3485	2769	000421			685							
	STD	0150	0395	3486	2770	000416	4 010		689							
130	085	0156	0395	34866	2771				690							
	STD	0200	0409	3490	2772	000406	4 012		704							
130	085	T0208	0412	34904	2772				707							
	STD	0250	0385	3487	2772	000408	3 014		702							
130	OBS	0258	0382	34866	2772	000404	4 016		702							
	STD	0300	0378	3487	2773	000406	4 016		707 708							
130	085	0308	0377	34870 3487	2773	000404	4 020		720							
120	STD	0400	0370	34866	2774 2773	000406	4 020		721							
130	OBS STD	T0407 0500	0369 0358	3486	2774	000409	9 024		732							
130	085	0510	0357	34856	2774	00040	024		733							
150	STD		0358	3486	2774	000419	1 028		748							
130	OBS	0614	0358	34859	2774				750							
170	STD		0356	3486	2774	000425	1 032		764							
	STD		0354	3486	2774	000431			780							
130	085	0820	0354	34864	2775				783							
	STD		0354	3487	2775	000434			796							
	STD		0353	3487	2775	000440	4 045	8 14	د81							
130	085	T1025	0353	34869	2775			14	817							
	STD	1100	0354	3487	2775	000448	050	3 14	830							
	STD		0355	3487	2775	000457			847							
	STD		0357	3488	2776	000460			865							
	STD		0358	3488	2776	000470			882							
	STD		0360	3489	2776	000472	7 068		900							
130	085	1530	0360	34891	2776	00017	7 0110		905							
	STD		0357	3491	2778	000474			941							
1.00	STO		0352	3493	2780	000472	8 092		982 985							
152	085	T2018	0351	34933	2780	000474	7 116		059							
167	STD	2500 2523	0331 0329	3494 34937	2783 2783	000474	110		064							
152	085		0271	34937	2785	000442	4 139		119							
152	STD OBS	3029	0266	34900	2786	000442	. 7 107		122							
152	085	T3360	0206	34892	2790				154							
152	085	3461	0186	34904	2793				163							
174	000	2.01														

REFERENCE	SHIP				_ e	MARS	DEN	STATION					DRIGIN	ATOR'S		DEPT	n lor	AX. PTH		WA		WEA	- CLOUE			NODC	
CTRY ID.	CODE	LATITU		LDNGITUDE	DRIFT			IGM			YEAR	CRUISE NO.		HOITAT		TO BDTTE	6	DF APL*5			ATIONS	THER			S N	UMBER	
			1/10	'1/1	0	10*	1*		HR.1/								13 //	.	DIR	1	PER SE	A	ITPE AN	-			
31 115	7 ML	5630	ON	050580	# ]	186		08 31	_	_	967					347	5 .	16	34	4			3 6		1	0017	l .
							WA	1	WIN		BARE	)- <del> </del>	_	WP. °C	VIS.	ND.		SPECI									
							COLOR	TRANS. DI	R.	OR DRCE	(mbs		DRY ULB	BULB	C001	DEPTI	HS Das	ERVA	TIONS								
								3		15	06	_	83	056	7	14											
								1	٦		100		-							Ц.							
	MESSENGI		CAR		(m)	1	°C	5 %.	.	SIG M.	A-T	SPECIFIC	VOLU	ME &	A D	5	DUND		02 m1/1		O4-P	TOTAL-		ND3-N	S104-Si	рМ	S
	HR 1/10		TYP	E								ANUM	ALT-XI		x 10 <sup>3</sup>		ELOCITY	Y		וע	g - 01/1	μg - et/l	μg + a1/1	μg = at/1	yg - o1/1	P11	c
																							-				$\Box$
	1	' '	S	TD ' 00	00	' 0	870	3448		267	78	001	279	5 0	1000	' 1	484	9									1.
	13	1	OB:	5 00	00	0	870	3447	6	267	18					7	484	9									
				TD 00			868	3448		267			273		013		485										
			_	10 00			865	3449		267		001	267	0 0	025		485										
	13	1	08				864	3449	0	268							485										
			_	1D 00			726	3453		270		001	040	3 0	U37		479										
	13	1	08				408	3466		275				_			467										
			_	TD 00			409	3467		275			1563		1053		467										
				1D 00			430	3482		276		000	475	1 0	U 66		469										
	13	1	OB:				440	3490		276		0.00		0 0	077		470										
				TD 01			440	3491 3492		276 277			420		077		470										
	13	1	08:	TD 01 5 01			433	3492		277		000	411	, ,	088		470										
	13	1		TD 01			433	3492		277		000	410	4 0	098		470										
	13	1	0B:				431	3492		277		000	410	4 0	,,,,		471										
	10	1		tD 02			429	3492	-	277		000	412	2 0	118		471										
	13	1	OB:				406	3491		277		000					471										
		•		TD 02			405	3491		277		000	399	2 0	139		471										
	13	1	OB:				392	3489	2	277							471										
		_		TD 03		0	391	3489		277	73	000	404	3 0	159	1	471	3									
	13	1	08	s T03	98	0	374	3488	2	277	74					1	472	2									
			S	TD 04	00	0	374	3488		277	74	000	1403	1 0	1199	1	472	4									
				TO 05			366	3488		277		000	406	5 0	146		473										
	13	1	OB:				366	3487	6	277							473										
				TD 06			366	3488	-	277		000	412	2 0	281		475										
	13	1	OB:				366	3488	2	277		0.00	. 6. 1 :-	1 0	2 2 2 2		475										
				TD 07			362	3468 3488		277			)415 )419		1322 1364		476										
	13	1	08:				358	3488		277		000	417	, (	1204		478										
	13	1		TD 09			357	3488		277		000	426	4 0	406		479										
				TD 10			356	3488		277			434		1449		481										
	13	1	08				356	3488		277				- •			481										
		-		TD 11			356	3489		277		000	439	8 0	1493		483										
				TD 12			357	3489		277			445		1537		484										
				TD 13			357	3489		277			1451		582		486										
				TD 14			357	3490		277			456		627		488										
			S	TD 15	00	0	358	3490		277	77	000	462	4 (	073	3 1	489	9									
	13	1	OB.	S T15	61	0	358	3490	4	277	77					1	491	0									

REFERENCE	SHIP			to be	MARS	DEN	STATION TI			ORIGINA"	TOR'S	DEPTH	MAX.		WAVE	w	EA-	CLOUD			NODC	
CTRY ID.	CODE	LATITUOE		AGITUOE SON	sou		(GMT)		AR		ATION	TO BOTTOM	OF	00.	SERVA TION	0.0	HER DOE	COOES			NUMBER	
-			/10	1/10 =	10*		MO DAY H					71 -	S"MPL"		HGT PER	SEA	-	TYPE AM1				
31 115	/ ML	56240	N   US	0085W	186	60 WAT		IN D	67	627 018		3475	16	29	2	!	ı	3 2			0018	1
								SPEED	BARC	)^	WET COD	NO. 085.		CIAL								
						CODE	(m) DIR.	FORCE	Imbs		BULB	OFFTHS	OBSERV	AIIONS								
							29	516	79	0 089	061 7	13										
	MESSENGA	CAST	CARD	_	T					SPECIFIC VOLUM	, ≥△0	sou	ND		PO <sub>4</sub> -P	TOTAL		NO <sub>2</sub> -N	NO3-N	SI O4-S		s
	HR 1/10	약 NO.	TYPE	DEPTH (m)	1	"C	s %.	SIGMA-	-T	ANOMALY-X107		. VELO		O2 ml/l	pg - 01/			μg + a1/1	ا/اه - وبر	yg - 01/		c
	INK 1710				+										+	+	$\dashv$			-	1	+
	1	1 1	STD	0000	0	998	3452	2660	) [	0014451	. ' 0000	144	897		1	ļ	1	- 1			1	11
	13	3	OBS	0000		998	34521	2660					897									
			STO	0010		998	3452	2660		0014494			899									
			STD	0020		998	3452	2660		0014538	0029		900									
	13	3	OBS	0025		998	34514	2660		0012407	0043		901									
			STD	0030 0050		892 563	3457 3473	2681 2741		0012487			863 741									
	13	3	OBS	0050		563	34731	2741		000000	0002		741									
		-	STD	0075		461	3478	2757		0005380	0077		703									
			STO	0100	0	397	3481	2766		0004513		140	681									
	13	3	OBS	0101	0	395	34815	2767	7			140	681									
			STD	0125	0	392	3484	2769		0004261	0101	. 146	664									
			STD	0150		388	3486	2771		0004094	0111		686									
	13	3	OBS	0153		387	34861	2771					686									
	12	2	STD	0200		375	3486	2774		0004007	0131		689									
	13	2	OBS STD	0203		374	34856 3486	2772		0004045	0151		689 696									
	13	3	OBS	0252		371	34856	2772		0004045	0171		696									
		_	STD	0300		365	3485	2773		0004038	0172		701									
	13	3	OBS	0304	0	364	34854	2773					702									
			STD	0400	0	363	3486	2773	3	0004065	0212	14	717									
	13	3	OBS	T0404		363	34860	2773					718									
			STD	0500		362	3486	2774		0004115			733									
			STO	0600		360	3487	2774		0004163	0294		749									
	13	3	OBS	0605 0700		360	34866 3488	2774		0004182	0336		750 766									
			STD	0000		362	3489	2779		0004182			783									
	13	3	OBS	0808		362	34887	2776		0004203	, 0576		785									
		-	STD	0900		360	3489	2776		0004250	0420		799									
			STD	1000	0	357	3489	2776		0004299			815									
	13	3	OBS	T1016	0	357	34889	2776	5			14	817									
			STD	1100		357	3489	2777		0004350			831									
			STD	1200		356	3490	2777		0004395			848									
			STD	1300		356	3490	2777		0004448			865									
			STD	1400		355	3490	2778		0004492			881									
	13	3	STD	1500 T1565		354 354	3491 34909	2778		0004536	0684		898 909									
	1.3	3	002	11703	U	334	24707	2118	9			14	707									

REFERENCE SHIP	TUDE LO	E M	ARSDEN DUARE	STATION TIM		ORIGINATO	OR'S	DEFIN   P	MAX.		VAVE RVATIONS	WEA-	CLOUD	T		NODC
CODE NO. CODE	1/10	NGITUDE SOUTHER		MO DAY HR.	YEAR	NO. NUA		0077011	OF _		GT PER SI	CODE	TYPE AM			TATION
311157 ML 562		0558W 18			46 1967	827 019		3475	13	-	2		8 5			0019
			WAT			AID TEAAD	°C	NO.			- 1 1	1	1 013	1	1	0017
			COLOR	TRANS DIR.	SPEED METE	R DRY V	VET CDDS	260	SPECIA BSERVA TI							
			COOE		516 13		061 7									
				32	310 13	0   0 / 0   0		14								
MESSENGE CAST	CARD	DEPTH (m)	T °C	s */	SIGMA-T	SPECIFIC VOLUME ANOMALY-X107	₹ △ D	SOUNC		mI/I	PO4-P	TOTAL-P	NO2-N	NO3-N	\$104-51	рН
HR 1/10	1112						x 10 <sup>3</sup>	VELOCII	I T		νg = σ1/l	μg + m1/1	\ta - gu	yg - at/l	μg - αI/I	
							]	1								
147	510	0000	0870	3451	2680	0012536	0000		-							
146	08S STD	0000	0870	34511 3451	2680 2680	0012583	0013	1485								
	STO	0020	0871	3451	2680	0012629	0013	1485	_							
146	085	0027	0871	34503	2680			1485								
	STD	0030	0825	3453	2689	0011789	0037	1483								
	STD	0050	0577	3466	2733	0007581	0057	1474	15							
146	085	0050	0577	34658	2733			1474								
146	STD	0U75	0464	3479	2757	0005337	0073									
146	OBS STD	0099 0100	0399	34858 3486	2770 2770	0004158	0085	1468								
	STD	0125	0394	3486	2770	0004131	0095									
146	OBS	0145	0390	34861	2771	000 1131	00,,	1468								
	STD	0150	0389	3486	2771	0004097	0105									
146	08\$	0191	0381	34862	2772			1469	90							
24.4	STD	0200	0379	3486	2772	0004035	0126									
146	085	0239	0374	34863	2773	0004005	0146	1469								
146	STD 08S	0250 0285	0373	3486 34868	2773 2 <b>7</b> 73	0004005	0146	1469								
1 40	STO	0300	0370	3487	2773	0003989	0166	1470								
146	085	T0377	0365	34870	2774			1471								
	STD	0400	0364	3487	2774	0004001	0406									
146	OBS	0463	0361	34870	2774	000105		1472								
140	STD	0500	0361	3487	2774	0004056	0246									
146	OBS STD	0551 0600	0360	34870 3487	2775 2775	0004106	0287	1474								
	STD	0700	0357	3488	2775	0004108	0287									
146	085	0722	0356	34877	2775	,	0-20	1476								
	STD	0800	0354	3488	2776	0004190	0370	1478								
146	085	0890	0352	34875	2776			1479	94							
	STD	0900	0352	3488	2776	0004258	0412									
	STO	1000	0353	3488	2776	0004332	0455									
	STD	1100	0355	3488	2776	0004406	0499									
	STD	1300	0356	3489 3489	2776 2776	0004472	0543	1484								
146	085	T1312	0357	34888	2776	0004540	0200	1486								
- 10				24000	2170			4 400								

																						r					
CE	SHIP					E 5	MARS		STATIO	N TIME	1			DRIGINA			DEPTH	MAX, DEPTH	0.0	WAVE SERVATIO	NIE	WEA-	CLOUD			NODC	
0.	CODE	LATITUI		LON	GITUDE	DRIE						AR	CRUISE NO.		ATIO		TO NOTTOB	1 05	DIR.	HGT PER		THER	TYPE AM			TATION	
_			1/10		1/10	+	10°			Y HR.1/	_					-		3 IMFE	1		SEA			-			
57	ML	5548	ON	049	9510W	1	185		09 04		-	967	B27				3475	14	32	5	ļ	ļ	6 8	1		0020	
								WAT	-	WINC		BARO	• -	UR TEM		VIS.	NO. OBS.	SPE	CIAL								
								COLOR	TRANS. C	DIR.   (	EED OR	(mbs)		UL8	BUL		DEPTHS	OBSERV	ZNOTA								
										31 S.	RCE 3	250		83	07	_	14										
		,							<u> </u>	, 1		2,70		0,	_		Ц			L				_		т	_
	MESSENGR	PUNSI	CAR		DEPTH	(m)	Т.	°C	s °/	.   ,	IGMA	_T	SPECIFIC	VOLUM	E	Z △ D	so	UND	O2 mi/	PO4-		OTAL-P	NO2-N	NO <sub>3</sub> -N	SI O4-SI	pН	S
	HR 1/10	T NO.	TYP	E						.			ANDM	ALT-XIU		x 10 <sup>3</sup>	VEL	OCITY		µg = 0	VI 1	g = at/l	μg - σ1/l	ا/10 - ولا	νg - ο1/i		С
	I	1	51	TD '	000	0	0	1906	3459	€ .	268	1 '	001	2500	) (	0000	14	6664		,	'						
	13	9	085	S	000	0	0	906	3451	89	268	1					14	864									
			51	T D	001			905	3459		268			2496		0012		865									
				TD	002			1904	3459		268		001	2499	7	0025		866									
	13	9	OB:		002			903	345		268							867									
			_	TD	003			837	346		269		001	1296	9	0037		843									
	13	9	083		004			511	3470		275		000	E 0 7 7	,	00.57		720									
				TD	005			1507 1431	3470		275			5977		0054		718									
	1.2	_		TD	007			1384	348		276 276		000	4742	4	0000		676									
	13	9	08	5 TD	010			384	345		276		0.00	4230	,	0079		676									
				TD	012			375	348.		277			4166		0090		676									
	13	a	OBS		014			1369	348		277		000	7100	•	00,0		677									
	10	,		TD.	015			366	3484		277		000	4082	į	0100		678									
	13	9	08		T019			362	348.		277		***					682									
		_		TD	020			1364	348		277.		000	4049	9	0120		664									
	13	9	0B		023			368	348		277							692									
				TD	025	0	0	366	348	6	277	ż	000	3971	1	0140	14	694									
	13	9	08	5	028	2	0	363	348	58	277	3					14	698									
			S.	TΡ	030	0	0	1363	348	6	277	3	000	3978	3	0160	14	701									
	13	9	0B:	5	T037	0	0	1363	348	66	277	4						712									
			5	TD	040	0		1361	348	7	277	4	000	4000	ز	0400		+716									
	13	9	0B:	5	045			1359	348		277							725									
				10	050			1360	348		277		000	4063	3	0241		732									
	13	9	OB:		054			360	346		277					2		740									
				TD	060			1359	348		277			4125		0281		749									
	1.2	^		TD	070			358	348		277		000	4197	1	0323		765									
	13	9	08		071			358 358	348		277 277		000	4235		0365		762									
	13	0	08:	TD	T089			1358	348		277		000	4232	,	0000		798									
	1.3	7		o TD	090			358	348		277		000	4296		0408		798									
				TD	100			358	348		277			4355		0451		815									
				TD	110			359	348		277			4420		0495		832									
				TD	120			1359	348		277			4478		0540		849									
				TD	130			360	348		277			4543		0585		4866									
				TD	140	00	0	360	349	Q	277	7	000	4600	)	0630	1,4	+883									
	13	9	08:	5	T140	9	Q	360	348	97	277	7					14	885									

																	_				
REFERENCE	, , , , ,		ane mor	E E M	AARSOEN SOUARE	STATION TI		VF 4.0		ATOR'S		DEPTH	MAX. DEPTH	0.0	WAV SERVA		WEA-	CLOUD			NODC
CTRY IO. COL		1/10	LONGITUOE	5 7	0° 1°	MO DAY H		YEAR		IOITAT2		TO BOTTOM	0.00			ER SEA	THER	TYPE AM	}		UMBER
311157 MI	5457		050495W		86 40			1967				3475	15	22	1			6 7	1		0033
1 22/223/1 (1)	-   2431	214	, , , , , , , , , , , , , , , , , , ,	1 1 *	WA		וככי	1	A 10 TE	MP. ℃			1 15	- 22	+	-	1	017	1	1	0021
							SPEED	- BARO	J-	WET	VIS.	NO. 085.	SPEC OBSERV	LAL							
					CODE	Im! DIR.	FORCE	[mbs		BULE	1	OEPTHS	OBJEKT	~ 110113							
						21	514	20	0 089	06	7 7	14									
MESS	ENGR CAST	CARO				1	Т		SPECIFIC VOLU		₹ △ 0	103	JND		1 00						
117	"E OF NO.	TYPE	DEPTH	(m)	ĭ °C	s */	SIGM	T-AA	ANOMALY-X	107	₹ △ 0 0YN. M X 10 <sup>3</sup>	. VETO	CITY	02 ml/l		- 01/I	10TA L-P ug - 01/1	NO2-N ug - at/l	NO3-N pg - ot/I	\$1 O4-51 pg - at/1	pН
HR	1/10		-				+			-	~										-
ı	- 1	   CT[	000	0	0960	3446	266	42	001430	12	0400	1 1 4	862			- 1				1	1
	135	510 085	000		0960	34459	266		001430	2	0000		882								
		ST			0960	3447	266		001427	77	0014		884								
		ST			0961	3447	260		001425		0029		886								
	135	OBS	002		0961	34477	266					14	887								
		ST	003	0	0880	3453	268		001260	2	0042	14	858								
		STO			0561	3472	274		000692	2.7	0062		740								
	135	OBS	005		0549	34726	27						735								
		ST			0457	3478	27!		000534		0077		702								
		STO			0395	3484	276		000430	15	0089		681								
	135	OBS	010		0393	34837	276		000117		0100		680								
		STO			0366	3484 3485	27		000417		0100 0110		681								
	135	085	015		0378	34850	27		000401	2	0210		682 682								
	133	510			0373	3486	27		000403	30	0130		688								
	135	085	T020		0373	34855	27		000.00		0-50		689								
		ST			0369	3486	27		000399	6	0150		695								
	135	OBS	025	3	0369	34860	27						695								
		STE	030	0	0364	3486	27	73	000398	3.2	0170	14	701								
	135	085	030	2	0364	34861	27	73				14	701								
		STO			0365	3487	27		000401	. 1	0210		718								
	135	OBS	T040		0365	34873	27			_			718								
	125	STO			0362	3466	27		000400	) /	0250		733								
	135	085	050		0362	34878	27						733								
	135	0BS 5T(	059 060		0362	34683 3488	27		000405	7	0290		750 750								
		5TI			0358	3488	27		000409		0290 31د0		765								
	135	085	079		0355	34883	27		300403		0-51		780								
		STI			0355	3488	27		000414	9	0372		750								
		ST			0354	3488	27		000421		0414		797								
		STI			0353	3489	27		000427		0457		813								
	135	OBS	T100		0353	34885	27						813								
		ST			0353	3489	27		000432	26	0500		830								
		ST	120	0	0354	3489	27	77	000441	1	0543	14	847								
		ST			0354	3490	27		000442		0588	14	664								
		ST			0355	3491	27		000443		0032		861								
		ST			0355	3492	27		000444	7	0676		898								
	135	085	T153	3	0355	34922	27	79				14	904								

Table 1X. Observed and interpolated oceanographic data for stations taken by USCGC SPENCER at Ocean Station BRAVO, 1-20 October 1967, prepared from NODC listing No. 31-1174 SC.

ERENC	E			. «	MARSDEN	STATION TIM	A E	ORIGINAT	TOR'S	DEPTH DEPTH		WAVE	WEA-	CLOUD		1	ODC	
IO	41H2	LATITU	D€ LO	NGITUDE BOOK	SOUARE	IGMTI MO DAY HR.	YEAR		TION SC	TO OF	0000	RVATIONS	THER	TYPE AM		12	ATION	
+		5 / 0 /						<del>                                     </del>		658 15				5 7			2001	
1/11	74 SC	5634	N   05	053 W	186 60 WAT		13 1967	A IR TEAS			20	0   2	06	1 211	1	1 '	0001	
					COLOR		SPEED MET	0-	WET CORE	ORY   WEER	CIAL VATIONS							
					CODE	Im) DIR.	FORCE (mb:		BULB	EPTHS	VA HORS							
						18	507 03	1 078	072 7	14								
	MESSENGI	Т		T				SPECIFIC VOLUM	. Z Δ D	SOUND		PO <sub>4</sub> =P	TOTAL-P	NO2~N	NO3-N	\$104-\$i		Ts
	TIME	NO.	C ARD TYPE	DEPTH (m)	T °C	s °/	SIGMA-T	ANOMALY-X107		VELOCITY	O2 ml/l	μg = α1/1	υg - ο1/1	1\10 - gu	μg - at/l	yg - at/l	pН	C
	HR 1/10	+					-											H
				2000	00/2	2450	1/07	001160	1	14068		1 1		1				11
		_	STD	0000	0863	3459 34585	2687 2687	0011882	0000	14848								
	11	3	OBS	0000	0863	3459		0011686	0012	14849								
			SID	0010	0863 0863	3459	2687 2688	0011891		14851								
	1.1		STD	0020	0863	34590	2688	0011071	0024	14852								
	11	3	085	0025	0786	3462	2702	0010562	0035	14824								
			STD	0050	0541	3472	2743	0006694		14731								
	2.1	2	085	0051	0531	34729	2745	000007	0032	14728								
	11	,	STD	0075	0444	3479	2759	0005123	0067	14697								
			STO	0100	0386	3482	2768	0004327		14677								
	11	3	OBS	0103	0382	34828	2769			14676								
		,	STD	0125	0379	3484	2770	0004131	0089	14678								
			STD	0150	0377	3484	2771	0004126	0100	14681								
	11	3	085	0150	0377	34841	2771			14681								
	11	-	OBS	0196	0376	34846	2771			14689								
			STD	0200	0375	3484	2771	0004159	0120	14689								
	11	3	OBS	0248	0368	34836	2771			14694								
			STD	0250	0368	3484	2771	0004134	0141	14694								
	11	3	OBS	0296	0366	34841	2772			14701								
			STD	0300	0366	3484	2772	0004150	0162	14702								
	11	3	OBS	T0392	0366	34842	2772			14717								
			STD	0400	0366	3484	2772	0004216	0204	14718								
	11	.3	OBS	0491	0365	34863	2773	000/161	0.177	14733								
			STD	0500	0365	3486	2773	0004151	0246	14735								
	11	3	OBS	0589	0364	34864	2774	000/-31	2 0287	14751								
			STD	0600	0364	3487	2774 2774	0004214		14767								
		_	STD	0700	0364	3487 34877	2775	000423	+ 0230	14784								
	11	.3	OBS	0799	0363		2775	000426	0372	14784								
			STD	0800	0363	3488	2775	000428		14800								
		2	STD	0900 T0985	0361	3488 34882	2775	000452.	, 0417	14813								
	11	. 3	OBS	10985	0360	3488	2775	000438	0459	14816								
			STD	1100	0358	3488	2776	000442		14832								
			STO		0357	3489	2776	000448		14848								
			STO	_	0356	3489	2776	000453		14865								
			STD		0356	3489	2777	000460		14881								
			STD	1500	0355	3489	2777	0004654		14898								
	1.1	13	085	11523	0355	34892	2777			14902								
	1		003	11727	4,7,7	3.472												

								_														
REFERENCE				, e	MARSOEN	S	TATION TI			ORIGIN.	ATOR'S		DEPTH	MAX.		WAVE SERVATIONS	WEA-	CLOUD		, N	ATION	
CTRY ID.	CODE	LATITU		NGITUDE LE	SQUARE		(GMT)		YEAR		TATION	- 1	TO BOTTOM	OF S'MPL"	"	HGT PER SE	CODE	TYPE AM			JABER	
CODE NO.			1/10	1/10	10" 1"	MO	DAY					$\rightarrow$			1		^+-		1			
311174	scl	5629	N O	5109 W	186 6				967			,,	3658	1.5	34	1121	-	7 5	1	1 (	0002	
					_	VATER	_	SPEED	BAR			ZIV	NO. 085.		CIAL							
					COL		INS. DIR.	OR FORCE	(mbs		WET	CODE	DEPTHS	OBSERV	ATIONS							
					-	-	12	_	12		061	7	14									
						_	12	505	1 12	7 005		-	14									Т.
	MESSENGE		CARD	OEPTH (m)	T °C		s °/	SIGM	A-T	SPECIFIC VOLU	ME EN	Δ D N. M. 10 <sup>3</sup>	SOL	DOLLA	O2 m1/1	PO <sub>4</sub> =P	TOTAL-P	NO2-N	NO3-N	\$1 O4-2i	pΗ	Ç
	HR 1/10		TYPE							ANOMALIOA	,	103	VELC	Jelli		µg • 01/1	μg + α1/1	µg ~ ot/1	μg - σ1/1	pg - 0.71		_
	1	1 1	STD	0000	085	1 :	3459	268	39	001170	5 0	000	14	843								
	10	5	085	0000	085	1 :	34585	268	39					843								
			STD	0010	084	2 :	3459	269	91	001157	7 0	012	14	842								
			STD	0020	083	1 :	3459	269	92	001142	0 0	023		8 3 9								
	10	5	OBS	0024	0.82		34590							838								
			STD		0.82		3459	269		001132	8 0	035		8 3 9								
	10	5	OBS	0047	079		34604							828								
			STD	0050	075		3462	270		001017		056		816								
			STD		051		3476	274		000616	.1 0	076		727								
	10	5	OBS	0095	039		34832			000634		U90		681								
			STD		039		3483	276		000432		100		679								
			STD		038		3483	27		000418	6 0	100		679								
	10	5	OBS	0143	037		34835			0000114		111		681								
			STD	-	037		3484 34876	277		000413	4 0	***		691								
	10	5	065	0191	038 037		34070 3487	27		000397	15 0	131		691								
	10	-	STD	0200	037		34869			000377	_	- ) 1		695								
	10	2	OBS STD		037	_	3487	27		000396	0 0	151		697								
	10	6	OBS	0288	037		34871			000370				703								
	10	2	SID		037		3487	27		000399	0 0	171		705								
	10	5	OBS	T0386	036		34881						14	718								
	1.0		STO		036		3488	27		000394	6 0	210	1.4	720								
	10	5	OBS	0480	036		34893						14	731								
			STE		036		3489	27		000390	7 0	450	14	733								
	10	5	085	T0570	035	6	34880	27	76					743								
			STO	0600	035	7	3488	27	76	000400		289		748								
			STO	0700	035		3489	27		000406	1 0	329		765								
	10	5	OBS	0766	036		34893							777								
			STE		035	-	3489	27		000411		370		782								
			STE		035		3490	27		000413	36 0	412		797								
	10	15	OBS	T0966	035		34897			000/3/	0 0	4.5.3		807								
			STO		035		3490	27		000416		453		813								
			STO		035 035		3490 3490	27 27		000425		1495 1538		847								
			STE		035		3491	27		000435	-	1282		864								
			STE		035		3491	27		000444		1626		881								
			STE		035		3491	27		000453		071		899								
	10	) 5	OBS	T1512	035		34914			000 // 2	-			901								
	10	, ,	003	11712	V 5 J	_	J 7 / L 7															

REFERENCE SHIP	HOITUDE SOUARE	STATION TIME	ORIGINATOR'S	DEPTH MAX.	WAVE WEA-	CLOUD NOOC
CINT ID. CODE		(GMT) YEAR	CRUISE STATION	BOTTOM OF	SERVATIONS THER	CODES STATION NUMBER
CODE NO. 1/10	1/10 = 10° 1°	MO DAY HR.1/10	NO. NUMBER	BOTTOM S'MPL'S DIA	HGT PER SEA	TWA 34YE
311174 SC   5626 N   05	100 W 186 61	10 04 101 1967	B28 003	3658 10 20	12	5 7 0003
	WA	TER WINO BAR	AIR TEMP. C	NO. SPECIAL		
	COLOR	TRANS. DIR SPEED METE	R ORY WET COL			
	COOE	Im1 FORCE (mbs	) BULB BULB	DEFINS		
		18 510 90	2   100   094   7	13		
MESSENGR CAST CARD			SPECIFIC VOLUME SA	SOUND	PO4-P TOTAL-P	NO2-N NO3-N SIO4-SI
TIME OF NO. TYPE	DEPTH (m) T °C	S %. SIGMA-T	ANOMALY-X107 DYN. 7	VELOCITY 02 mi/	yg - at/1 yg - at/1	NO2-N NO3-N SIO4-SI PH C
HR 1/10			X 10		<u> </u>	
STD	0000 0849	3459 2690	0011646 000			
101 OBS	0000 0849	34589 2690		14845		
S1D	0010 0848	3459 2690	0011654 001			
STD	0020 0847	3459 2690	0011661 002			
101 OBS	0024 0846	34586 2690	0010	14845		
STD	0030 0766	3462 2705	0010281 003			
101 OBS	0049 0561	34710 2739	2001010 200	14739		
STD	0050 0556	3471 2740	0006928 005			
STD	0075 0446	3476 2756	0005400 006			
101 OBS	0098 0384	34797 2766	0004450 003	14675		
STD	0100 0384 0125 0381	3480 2767 3480 2767	0004458 007			
101 OBS	0125 0381 0149 0378		0004451 009	0 14678 14681		
	0149 0378		0004433 010			
STD STD	0200 0373		0004422 010			
101 OBS	10200 0373	3483 2770 34829 2770	0004222 012	14688		
	0247 0364	34829 2771				
101 OBS STD	0250 0364	34829 2771	0004169 014	14692 4 14692		
			0004109 014			
101 085 STD	0297 0366 0300 0366	34857 2773 3486 2773	0004008 016	14701 4 14702		
101 085	10390 0364	34869 2774	0004000 016	14716		
510	0400 0364	3487 2774	0004008 040			
101 085	0491 0363	34869 2774	0004000 020	14732		
STD	0500 0363	3487 2774	0004085 024			
101 085	0589 0360	34869 2774	0004003 024	14747		
STD	0600 0360	3487 2775	0004132 028			
STD	0700 0360	3487 2775	0004217 032			
101 OBS	0782 0359	34875 2775	000.211 0-2	14779		
STD	0800 0359	3488 2775	0004216 057			
STO	0900 0356	3488 2776	0004266 041			
101 OBS	10966 0354	34892 2777	0004200 041	14808		
101 003	10700 0374	2.072 2117		- 1000		

CODE NO. CODE	1/10	NGITUDE NO		STATION TIM	YEAR	NO, NU	DR'S TION MBER	TO BOTTOM S	OF S'MPL'S DIR.	-	WEA- THER CODE	TYPE A.M		S1 N	NOOC TATION UMBER	
31 1174  SC   56	23 N   05	117 W   1		10 05 18		B28 U04	b 1	3658	04 33	15 2	Ī	5   8	1	- 1	0004	
			WAT		BAR MET	0-	VIS		SPECIAL							
			COLOR	IRAN'S DIR.	ORCE (mb		WET COT	OEPTHS O	OBSERVATIONS	1						
					16 79	3 044 (	7 660	08		1						
MESSENGR CA TIME OF NI HR 1/10	ST CARO O. TYPE	DEPTH (m)	T *C	s */	SIGMA-T	SPECIFIC VOLUME	₹ Δ C OYN. A x 10 <sup>3</sup>	SOUN VELOC		PO4-P y0 - 01/I	FOTAL-P pg = mr/i		NO3-N yg - at/1	\$1 O <sub>4</sub> -51 yg = 01/1	рН	200
·	STD	0000	0730	3457	2706	0010125	000									
189	085	0000	0730	34568	2706			147								
	STD	0010	0731	3457	2706	0010157	001									
	STD	0020	0731	3457	2705	0010189	002									
	STD	0030	0732	3456	2705	0010228	003									
189	085	0033	0732	34564	2705	_		148								
	STD	0050	0553	3467	2737	0007207	004									
189	OBS	0064	0446	34738	2755			146								
	STD	0075	0440	3476	2757	0005306	006	_								
	STD	0100	0427	3480	2762	0004896	007									
	STD	0125	0417	3482	2765	0004667	008									
189	OBS	0129	0415	34826	2765	0001131	010	146								
100	STD	0150	0409	3483	2766	0004534	010									
189	OBS	0193	0396	34836	2768	0004343	017	146								
	SID	0200	0394	3484	2768	0004383	012.									
100	STD	0250	0381	3484	2770	0004289	014	4 147 147								
189 189	0BS 0BS	T0258 03210	0379	34837 34858	2770 2772			147	00							
189	085	03870	0366	34847	2772											
10,	303	0-0.0	- 300	5.541												

REFERENCE	SNIP	LATITUO	26	TONGITUOE BOOTE	MARSDEN	STATION THE	ME YEAR	ORIGINATO			MAX. DEPTH OBS	WAVE	WEA-	CLOUG		ON	
CTRY ID.	CODE		1/10	* '1/10 G N	1	H YAO ON	1/10	NO. NU		MOTTOR	OF MPL'S DIR	HGT PER SEA	CODE	TYPE AMT		NUA	ABER
311174	sc	5627	N C	05102 W			10 196			3858	09 31	2 2		5 6		00	005
					COLOR	TRANS. OIR.	SPEED ME	TER ORY V	VET CODE	NO. OBS.	SPECIAL						
					CODE	(m)	FORCE (ml		ULB	UEFIRS							
						23	\$10   0	T- 1	011 7	12					т		
	MESSENGR TIME O	CAST	CARD TYPE	OEPTH (m)	τ ℃	s %.	SIGMA=T	ANOMALY-X107	₹ △ D OYN. M. x 10 <sup>3</sup>	AETOC 200N		PO4-P vg - ot/1	TOTAL-P	NO2-N ug - at/I	NO3-N NO - 01/1	21 O4-2!	рн С
	HR 1/10					-											
		, ,	ST		0784	3459	2699	0010734	0000	148				,			
	110	)	08S ST	0000 0 0010	0784 0779	34586 3459	2699 2701	0010633	0011	148 148							
			ST		0775	3460	2702	0010533	0021	148							
	110	)	ST OBS		0770 0761	3461 34620	2703 2705	0010432	0032	148 148							
			ST		0751	3462 3471	2707 2742	0010085	0052 0073	148							
	110		ST QBS		0534 0410	34782	2762	0000149		146							
			ST ST		0408 0390	3479 3482	2763 2768	0004775	0088	146							
	110	)	085		0380	34835	2770	0004371	00,,	145							
			ST		0379 0374	3484 34841	2770 2771	0004154	0110	146							
	110	J	08S ST		0374	3484	2771	0004142	0131	146							
	110	)	085		0372 0370	34845 3485	2771 2772	0004079	0151	146							
	110	)	ST OBS	0286	0365	34856	2773			146	99						
	110	)	ST OBS		0365 0365	3486 34860	2773 2773	0004020	0171	147							
	110	,	ST		0364	3486	2773	0004068	0412	147							
	110	)	08S		0363 0362	3486	2774	0004112	0253	147	33						
	110		085	T0550	0361	34866	2774			147	41						
			ST		0361 0362	3487 3489	2774 2776	0004146	0294	147							
	110	)	085	0739	0362	34892	2776	000/1//	0.17/	147							
			ST ST		0362 0361	3489° 3490	2776 2777	0004146	0376								
	110	)	OBS	T0936	0360	34899	2777			148	105						
REFERENCE CTRY IO.	SHIP	LATITU	DE	FONGLINDE FEO	MARSOEN SOUARE	STATION T	IME YEAR		TOR'S	OEPTH TO	MAX. DEPTH OF	WAVE SERVATIONS		COOES	3	STA	ODC
CODE NO.	<del> </del>		1/10	1/10 =	10° 1°	MO DAY H			MBER	MOTTOR	S'MPL'S DIR	HGT PER S	CODE	TYPE AM			MBER
31 1174	SC	5632	N	05048 W	186   60     WA1		125 196	7 B28 006	. 'C	3658 NO.	10 22	10121	- 1	816	1	1 6	0006
					COLOR	TRANS. DIR.	SPEED MI	ETER ORY	WET COD		OBSERVATIONS						
						22		97 094	067 8	13		1					
	MESSENGR	CAST	CARE	DEPTH (m)	T 10	s 1/4.	SIGMA-T	SPECIFIC VOLUMI	UIN. N	SOU		PO4-P	TOTAL-P		NO <sub>3</sub> -N	S1 O4-Si	рн 5
	HR 1/10	1	1176		-				X 10 <sup>3</sup>	7220	CIII	yg = e1/1	yg - gt/l	J/10 - gu	yg - o1/1	µg - ot/1	C
	1		l ST	0000	0787	3459	2699	0010754	0000	148	319	l	1	I	I	1	11
	12	5	085		0787	34589	2699	0010733	0011	148							
			ST		0784 0782	3459 3459	2700 2700	0010733	0011								
	12	5	085 ST		0780 0726	34588 3462	2700 2710	0009733	0032	148							
			\$1	0 0050	0512	3474	2748	0006212		147	720						
	12	5	08S		0496 0442	34748 3479	2750 2760	0005102	0062		714 596						
		-	ST	D 0100	0402	3481	2765	0004564		146	583						
	12	>	085 ST		0400 0391	34814 3481	2766 2767	0004484	008		683 683						
	12		ST		0384	3480 34803	2767	0004474	0096		584						
			085 ST	0 0200	0383	3485	2771	0004166	0118	146							
	12	5	085 ST		0383	34851 3486	2771 2771	0004136	0139	146							
	12	5	085	0259	0381	34860	2772			147	701						
	12	5	S 7 085		0381 0381	3487 34877	2772 2773	0004088	0159		708 710						
			ST	D 0400	0372	3466	2774	0004010	0200	147	721						
	12	,	085 ST	D 0500	0371 0368	34882 3487	2774	0004128	0240		723 736						
	12	5	089 ST		0367 0366	34865 3487		0004199			738 752						
	12	5	085	0622	0366	34875	2774			147	755						
			\$ T \$ T		0367 0369	3488 3489	2775 2775	0004222			769 786						
	12	5	085	0831	0369	34893	2775			147	792						
			S1		0368 0363	3489 3489	2776 2776	0004308									
	12	5	085		0361	34893					823						

ICE	SHIP		D.	LONGI	TE E	MARS		STATION T		EAR		RIGINAT		DEPTH	MAX.	08	WAVE	אר	WEA-	CLOU			ноос
ID.	CODE	LATITU	1/10	LONGII	INOE PER	10°		MO   CAY		EAR	CRUISE NO.		MBER	NOTTO8	S'MPL		THGT PER		THER	TYPE A	1		TATION
174	5.0	5630		0510						967	-			2 4 5 H	12								2007
F 1.44	SC	5630	DI.	0510	00 W	186	WAI		AIND	· · · · ·	B28	OO7		3658 NO.		29	1012	1	l	1516	) I	1	00071
						Ì	COLOR		SPEED	METER	•		WET CODE	OBS.		CIAL /ATIONS							
							CODE	Im) UIK,	DR FDRCE	(mbs)		LB I	BULB	DEPTHS	O P S C II I								
								31	510	22	7 04	+4	039 7	14									
[	MESSENGR	CAST	CART			Ι.	*~	/	T		SPECIFIC	VOLUME	₹ △ D DYN. M	50	UND		PO <sub>4</sub>	-P 1	OTAL-P	NO <sub>2</sub> -N	NO3-N	SI O4-Si	
	TIME -	T NO.	TYPE		DEPTH (m)	'	"C	5 %	SIGMA	<b>1</b>	ANOMA	FA-X103	X 103	. VEL	OCITY	O 2 ml/	h8 = 1		vg - 01/1	µ <b>g</b> - at/		µg ~ a1/	pН
ŀ	17 10					+		1	1			-											
1		1 1	ST	n	0000	1 0	706	3458	271	0	000	9700	0000	14	787		1	- 1			1	1	1
	134	4	085		0000		706	34582	271				0 - 0 0		787								
			51		0010		707	3458	271		000	9729	0010	14	789								
			ST	D	0020		708	3458	271		000	9759	0019		791								
	13	4	085		0020		708	34582	271						791								
			ST		0030		709	3458	271		000	9766	0029		793								
	13	4	085		0041		709	34586	271						795								
			ST		0050		622	3464	272			8265	0047		763								
	1.2		51		0075		446	3475	275 276		000	5445	0064		697								
	13	4	085		0084		392	34778 3478			000	4725	0077		679								
			\$1 \$1		0125		379	3477	276 276			4123 4656	00 89		677								
	13	6	089		0125		379	34770	276		000.	4000	0003		677								
	10.	•	ST		0150		381	3480	276		000	4477	0100		683								
	13	4	085		10168		383	34821	276				000		687								
			51		0200		374	3484	277		000	4149	0122		688								
	13	4	085	5	0209	0	372	34848	277	2				14	689								
			ST	O	0250	Ú	368	3485	277	2	000	4074	0142	14	694								
	13	4	085	5	0250		368	34848	277						694								
			ST		0300		365	3485	277		000	4073	0163	1 14	70±								
	13	4	085		10326		364	34852	277				- 15		705								
	1.0	,	51		0400		366	3486	277		000	4102	0204		718								
	13		085		0409		366 365	34860 34864	277 277						720								
	13	4	085 ST		0500		364	3487	277		000	4126	0245		734								
			51		0600		361	3487	277			4143	0286		750								
	13	4	085		0644		360	34872	277		000		0200		756								
			51		0700		360	3488	277		000	4143	0328		766								
	13	4	085		10798	0	360	34888	277					14	782								
			ST	T D	0800		360	3489	277			4168	0369		783								
			51		0900		359	3489	277			4226	0411		799								
			ST		1000		358	3489	277			4284	0454		815								
			ST		1100		355	3489	277			4316	0497		ادی								
	1.0	,	ST		1200		352	3490	277		0004	4347	0>40		846								
	13	4	085	)	1211	0	352	34896	277	1				14	848								

REFERENCE SHIP		TE N	SOUARE	STATION TIME		ORIGINA	TOR'S	DEPTH	MAX. DEPTH	WAVE	WEA	Crono			NODE
CODE NO. CODE	ITUDE LD	. 62		MD DAY HR.1.	YEAR		ATION JMBER	BOTTOM	DF S'MPL'S DI	DBSERVATIONS	THER	CDDES			UMRER
311174 SC 563				10 14 14				_		_	^	TYPE AM			
1 311111 30   30	00 N   03	,100 M   11	WAT		D	AIR TEAS		3628	14 3	1 3 5	1	8 6	I	}	18000
			CDLDR	TRAME S	PEED MET	J	WET COD	NO. ORS.	SPECIAL DRSERVATION	16					
			CODE	tent Util	ORCE (mb)		BULB	DEPTHS		<u>'</u>					
				31 S	10 19	3 050	039 7	14							
MESSENGA CAS	T CARD					SPECIFIC VOLUM	E & A D	SDUI	ND.	1/1 PO4-P		110		41.0	$\overline{}$
TIME OF NO	TYPE	DEPTH (m)	1 6	s */	SIGMA-T	ANOMALY-XIO	2 10 <sup>3</sup>	VELO		NB - 01/1	10TAL-P 1/10 • 81/1	NO2-N ug - 01/I	NO3-N pg - ol/l	SI D4-Si pg + ot/f	pH
MK 1710				<del> </del>					_						
	STD	0000	0699	3462	2714	0009354	0000	147	, 0 6	1		1			1
144	QBS	0000	0699	34616	2714	000933	0000	147							
- 1 1	STD	0010	0699	3462	2714	0009363	0009								
	STD	0020	0698	3462	2714	0009373									
144	OBS	0020	0698	34616	2714			147							
	STD	0030	0698	3462	2714	0009374	0028	147	190						
144	085	0040	0698	34620	2714			147	791						
	STD	0050	0609	3468	2731	0007809	0045	147	758						
	STD	0075	0447	3479	2759	0005155	0061								
144	085	0081	0422	34805	2763			146							
***	STD	0100	0401	3482	2766	0004478	0074								
144	085	0122	0385	34829	2769	0004354	0(10.4	146							
	STD	0125	0384	3483	2769	0004256									
144	STD OBS	0150 T0166	0380	3484 34847	2770 2771	0004164	0095								
144	STD	0200	0370	3485	2772	0004049	0115	146	_						
144	OBS	0209	0369	34848	2772	000404	, 0113	146							
144	STD	0250	0373	3486	2772	0004069	0136								
144	OBS	0253	0373	34856	2772	000400	0130	146							
	STD	0300	0369	3486	2773	0004039	0156								
144	OBS	0343	0367	34864	2773			147							
	STD	0400	0368	3487	2774	0004038	0196								
144	085	0434	0368	34872	2774			147	725						
	STD	0500	0369	3488	2774	0004064	0237	147	36						
144	OBS	0527	0369	34884	2775			147	741						
	STD	0600	0368	3488	2775	0004112	0278	147	153						
	STD	0700	0366	3488	2775	0004182	0319								
144	OBS	0714	0366	34884	2775			147							
	STD	0800	0363	3489	2776	0004194									
100	STD	0900	0359	3490	2777	0004184	0403								
144	085	T0906	0359		2777	0001.00	0	148							
	STD	1000	0359		2777	0004231									
	STD	1100 1200	0358	3491	2778	0004236									
	STD STD	1300	0358 0357	3491 3491	2778 2778	0004314									
144	OBS	T1395	0357	34915	2778	0004391	. 0574								
144	002	11333	0331	24712	4110			148	201						

REFERENCE			- #	MARSOEN	STATION TIA		, OR	IGINATO	R*S	DEPTH	MAX, DEPTH		WAVE	WEA-	Crono			NOOC	
CTRY IO,		,	NGITUGE 50	SOUARE	(G M T)	YEAR	CRUISE	STAT		BOTTOM	OF		ERVATIONS	THER	COOES			STATION	
CODE NO.		1/10	1/10 ==	10 1	MO OAY HR	-1/10	NO.	NUN	IRFK		S'MPL'S	DIR.	HGT PER SE	A   333	TYPE AM	1			-
31117	4 SC   56	30 N 0	5100 W	186 61	10 15 1	35 1967		009		3656	24	32	2 5		6 8		-	0009	4
				WA	TER W	INO BAR	0- A1	R TEMP.	°C VIS	NO.	SPEC	IAI							
					TRANS OIR.	SPEED MET			ET COD	OBS.	OBSERV								
				COGE		FORCE (IND		-											
					31	510 20	7 05	0 0	39 7	16									
	MESSENGE CA	ST CARO		τ °c	s */		SPECIFIC '	VOLUME	₹ ∆ a	501	UNO	010	PO4-P	TOTAL-P	NO2-N	NO3-N	5104-5	i	S
	HR 1/10 NO	). TYPE	DEPTH (m)	1 ' '	5 7	SIGMA-T	ANDMA	LY-X107	X 103	, AETO	OCITY	O 2 ml/l	νg = e1/1	µg + a1/1	μg - α1/l	µg - ot/l	hB - alv		č
	112 1770		1		1														
		STO	0000	0700	3458	2711	0009	2641	0000	1 14	785						1	1	11
	135	085	0000	0700	34579	2711					785								
	200	STO	0010	0700	3459	2712	0009	9572	0010		787								
		STD	0020	0699	3460	2713	0009		0019		788								
	135	085	0024	0699	34603	2713					789								
		STD	0030	0699	3460	2713	0009	9500	0029		790								
	135	OBS	0047	0697	34600	2713					792								
		STD	0050	0673	3461	2717	0009		0047	7 14	783								
		STD	0075	0507	3472	2747	0006	336	0067		722								
	135	OBS	0096	0420	34774	2761					690								
		STD	0100	0416	3478	2762	0004		0081		689								
		STD	0125	0399	3481	2766	0004	+557	0093		656								
	135	085	0141	0392	34817	2767	0000		0100		686								
	105	\$10	0150	0392	3482	2767	0004	4435	0104		688								
	135	08S ST0	0186 0200	0390	34821 3483	2768 2769	0004	4356	0126		693								
	135	085	0232	0380	34848	2771	000-	4230	0-20		696								
	100	510	0250	0375	3485	2771	0004	+152	0147		697								
	135	OBS	0278	0369	34844	2772					699								
	200	510		0367	3484	2772	0004	4138	0168		702								
	135	OBS	T0372	0365	34844	2772				14	713								
		STD	0400	0366	3485	2772	0004	4171	0409	9 14	718								
	135	OBS	0460	0367	34856	2773				14	729								
		STO		0367	3486	2773	0004	4229	0451		735								
	135	085	10550	0368	34856	2773					744								
		510		0368	3486	2773		4293	0294		752								
		STO		0368	3487	2774	0004	4306	033		769								
	135	OBS	0748	0367	34871	2774	000	6.3.10	030		777								
		STD		0365	3487 3488	2774 2775		4329 4312	0380		785								
	135	STD OBS	T0943	0359	34883	2776	000	7212	0-2		806								
	155	STD		0359	3488	2776	0004	4354	J46		816								
		STD		0358	3489	2776		4411	0510		832								
		\$10		0357	3489	2776		4466	0559		848								
		STO		0356	3489	2777		4513	0600		865								
		STO		0355	3489	2777		4567	064	5 14	881								
	135	OBS	T1461	0354	34894	2777				14	891								
		STD	1500	0354	3490	2778	000	4576	069	1 14	897								
		STO	1750	0350	3491	2779	000	4655	080	6 14	938								
	156	085	T1972	0347	34922	2780				14	975								
		STO	2000	0346	3492	2780	000	4704	092		979								
	156	085	T2438	0313	34930	2784				15	040								

Strict   Constitute   Constit	SHIP		- # A	MARSDEN	IT NOITATE			ORIGIN	ATOR'S					WAVE						NODC	
	CTRY ID. CODE		NGITUDE RES				AR C					DF				CDOE				TATION	
Walt										-		S.W bris	DIR	HGT PER	SEA	0000		_		OWIDER	
	1 31/11/4 20   3628	NIOS	028 MI 11				967				3658	10	33	1 3			5 7			0010	
MISSINGE CATT   CATD   DIFTE ION   1 T C   5 */c.   SIGMA-T   HICKNOWN   EAD   DIVIN   DIVIN				-							OBC	SPEC	IAL								
						OR				CODS		OBSERVA	SHOTT								
Mission   CAST   CAST					26		180	050	039	7	13										
Time	MESSENCO											-			_					T	
STD   0000   0704   3451   2705   0010195   0000   14786   1	TIME OF NO.		DEPTH (m)	T C	s %.	SIGMA	-1 5	PECIFIC VOLU ANOMALY-11	02   D1	'N. M.			D2 ml/l								S
104	HR 1/10					ļ			,	( 10 <sup>3</sup>	1	CIII		hã. o	17/1	ا/10 - 94	1/10 - Bd	yg - o1/I	yg = 01/1		C
104			0000	070/	2463	3701															-
STD   O010   O703   3453   2707   O010064   O010   14787	104							001019	5 0	000											
STD   0020   0702   3455   2708   0009917   0020   14789   14789   14789   STD   0030   0701   3456   2709   0009839   0030   14790   STD   0050   0698   3456   2711   0009711   0050   14792   14793   14793   14794   14792   14792   14793   14794   14792   14792   14792   14793   14794   14792   14792   14792   14793   14794   14792   14794   14792   14792   14793   14794   14792   14794   147	104							001006		010											
104																					
STO   0030   0701   3456   2709   0009839   0030   14790   14790   14790   14790   14792   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14793   14794   14792   14792   14792   14793   14794   14792   14794   14792   14794   14792   14794   1	104							000771	, ,	020											
STD								000983	9 0	U30											
104		STD	0050	0698																	
STO 0100 0405 3478 2763 0004819 0084 14684  104 085 0101 0402 34784 2763 14683  STO 0125 0397 3478 2764 0004727 0108 14687  STO 0150 0391 34779 2764 14687  STO 0200 0380 3481 2767 0004460 0131 14690  104 085 0202 0379 34807 2768  STO 0250 0376 3483 2770 0004313 0153 14697  104 085 0254 0375  STO 0300 0367 3485 2772 0004105 0174 14702  104 085 0304 0366 34850 2772  STO 0400 0370 3485 2772 0004211 0215 14720  104 085 0508 0362 3486 2773 0004170 0257 14733  104 085 0508 0362 34858 2773  STO 0600 0361 3488 2775 0004170 0257 14735  STO 0600 0361 3488 2775 0004017 0259 14750  STO 0600 0361 3488 2775 0004017 0399 14766  STO 085 0817 0358  STO 0900 0355 3489 2776 0004240 0423 14798	104	OBS	0050	0698	34577	2711	1.														
104										U70	147	726									
STD   0125   0397   3478   2764   0004759   0096   14685     STD   0150   0391   3478   2764   0004727   0108   14687     104   085   0151   0391   34779   2764   14687     STD   0200   0380   3481   2767   0004460   0131   14690     104   085   0202   0379   34807   2768   14690     STD   0250   0376   3483   2770   0004313   0153   14697     104   085   0254   0375       STD   0300   0367   3485   2772   0004105   0174   14702     104   085   0304   0366   34850   2772   14702     STD   0400   0370   3485   2772   0004211   0215   14720     104   085   10406   0370   34850   2772   14720     104   085   10406   0370   34850   2772   14721     STD   0500   0363   34856   2773   0004170   0257   14733     104   085   0508   0362   34858   2773   0004170   0257   14753     STD   0600   0361   3488   2775   0004069   0298   14750     104   085   0511   0361   34882   2775   000417   0381   14782     STD   0800   0358   3488   2776   0004179   0381   14782     104   085   0817   0358   3488   2776   0004179   0381   14782     STD   0900   0357   3489   2776   0004293   0466   14814								000481	9 0	084	146	564									
STD   0150   0391   3478   2764   0004727   0108   14687   14687   14687   STD   0200   0380   3481   2767   0004460   0131   14690   14690   STD   0250   0376   3483   2770   0004313   0153   14697   14697   104   085   0254   0375   0254   0375   0254   0375   0254   0375   0254   0375   0254   0375   0254   0375   0254   0254   0375   0254   0255   0254   0254   0255   0254   0255   0254   0255   0254   0255   0254   0255   0254   0255   025	104																				
104																					
STD   0200   0380   3481   2767   0004460   0131   14690	10/							000472	7 0	108											
104	104							000666	0 0	1 2 1											
STD   0250   0376   3483   2770   0004313   0153   14697	104							000440	0 0	101											
104	104							000631	3 0	162											
STD   0300   0367   3485   2772   0004105   0174   14702   14703   14703   14703   14703   14703   14703   14703   14704   1	104				3403	2170	,	000431	, ,	د د د	140	371									
104					3485	2772	2	000410	5 0	174	147	702									
STO   0400   0370   3485   2772   0004211   0215   14720   14721   14721   14721   14721   14721   14721   14721   14721   14721   14721   14721   14723   14733   104   085   0508   0362   34858   2773   2775	104	OBS																			
STD 0500 0363 3486 2773 0004170 0257 14733  104 085 0508 0362 34858 2773 14735  STD 0600 0361 3488 2775 0004069 0298 14750  104 085 0611 0361 34882 2775 14752  STD 0700 0360 3488 2776 0004117 0339 14766  STD 0800 0358 3488 2776 0004179 0381 14782  104 085 0817 0358  STD 0900 0357 3489 2776 0004240 0423 14798  STD 1000 0355 3489 2776 0004293 0466 14814		STD	0400	0370	3485	2772	2	000421	1 0	415											
104 08S 0508 0362 34858 2773 14735 STO 0600 0361 3488 2775 0004069 0298 14750 104 08S 0611 0361 34882 2775 14752 STD 0700 0360 34882 2776 0004117 0339 14766 STD 0800 0358 3488 2776 0004179 0381 14782 104 08S 0817 0358 STD 0900 0357 3489 2776 0004240 0423 14798 STD 1000 0355 3489 2776 0004293 0466 14814	104				34850						147	721									
STD 0600 0361 3488 2775 0004069 0298 14750 104 085 0611 0361 34882 2775 14752 STD 0700 0360 3488 2776 0004117 0339 14766 STD 0800 0358 3488 2776 0004179 0381 14782 104 085 0817 0358 STD 0900 0357 3489 2776 0004240 0423 14798 STD 1000 0355 3489 2776 0004293 0466 14814								000417	0 0	257											
104	104																				
STD 0700 0360 3488 2776 0004117 0339 14766 STD 0800 0358 3488 2776 0004179 0381 14782 104 08s 0817 0358 STD 0900 0357 3489 2776 0004240 0423 14798 STD 1000 0355 3489 2776 0004293 0466 14814	10.							000406	9 0	298											
STD 0800 0358 3488 2776 0004179 0381 14782 104 085 0817 0358 STD 0900 0357 3489 2776 0004240 0423 14798 STD 1000 0355 3489 2776 0004293 0466 14814	104							000/11	-												
104 OBS 0817 0358 STO 0900 0357 3489 2776 0004240 0423 14798 STD 1000 0355 3489 2776 0004293 0466 14814					,																
STD 0900 0357 3489 2776 0004240 0423 14798 STD 1000 0355 3489 2776 0004293 0466 14814	104				3466	2116		000417	9 0	281	147	182									
STD 1000 0355 3489 2776 0004293 0466 14814	104				3489	2776		000424	0 0	423	147	798									
	104									-											

REFERENCE SHIP LATE			_≝ MAR	SDEN STATION TIME			ORIGINATOR'S			DEPTH	MAX. DEPTH		WAVE	WEA-	CLOUD			NODC	
CODE NO. CODE .		NGITUDE	5 5	ARE	(GMT)		YEAR	CRUISE NO.	STAT		BOTTON	OF	000	ERVA TIONS	CODE	CODES		N S	LMBER
	1/10	1/10	10*	1.	MO DAY F			<del>                                     </del>		BEK		3 MILL		HGT PER SE	^	TITE AM	_		
31 1174 SC   563	2 N   05	057 W	186		10 17		1967		11		3658	17	22	2 2		5 7	1	1	0011
				WA	_	VIND	BAR	0	TEMP.	VIS.	NO.	SPE	CIAL						
				COLOR	TRANS. DIR.	OR	TWO ET		BL	ET COD	DEPTHS	OBSERV	ATIONS						
					18	SII			-	61 7	14								
					10	311	1 20	0 0 12	.   "										
MESSENGE CAST	CARD	DEPTH (m	) T	*c	5 %.	SIG	MA-T	SPECIFIC VO	LUME	Z △ D	SO	UND	O2 ml/(	PO <sub>4</sub> -P	TOTAL-P		NO3-N	S1 O4-Si	pH
HR 1/10 NO.	TYPE							ANUMALI	-210-	x 10 <sup>3</sup>	VEL	OCITY		μg - σ1/l	yg - a1/l	1\fo - gu	μg = at/l	yg - ot/	
1 '	STO	0000	) (	683	3461	27	15	00092	12	0000	) 14	779		'					
098	OBS	0000	) (	683	34607	27	15				14	779							
	STD	0010	) (	689	3461		15	0009		0009		783							
	STD	0020		1694	3461		14	00093	668	0019		786							
098	085	0022		1695	34614		14					787							
	STD	0030		694	3462		115	0009	516	0028		788							
098	OBS	0045		691	34626		116	00081	5 A A	0046		789							
	STD	0050		)650 )487	3465 3474		723	00089		0046		774							
	SID	0100		391	3480		96	0004		0077		679							
098	OBS	0102		386	34803		167	0004.	20	00 1		677							
098	STD	0125		1383	3481		67	0004	396	0088		679							
098	085	0142		380	34815		768					681							
0,0	STD	0150		378	3482		68	00043	331	0099		682							
098	085	T0184		372	34815		769				14	685							
	STD	0200	) (	370	3482	27	169	0004	297	0121	1 14	686							
098	085	0238	) C	366	34815	27	70				14	691							
	STD	0250	) (	364	3482	27	770	00044	243	0142		692							
098	OBS	0288		1359	34823		771					696							
	STD	0300		1359	3483		71	0004		016:		698							
	SID	0400		361	3484	_	772	0004	185	0205		716							
098	OBS	0408		361	34842		772			0.1.		717							
0.00	SID	0500		360	3486		773	0004	121	024		732							
098	OBS	0513		360	34858		774	0006	161	0.294		735							
0.00	STD	0600		355	3486 34862		174 174	0004	131	0288		749							
098	OBS STD	T0615		356	34862		774	0004	244	0330		764							
098	085	0719		356	5400	- 1		0004	- 45	0230		.,							
078	STD	0800		356	3485	27	773	0004	+03	0373	3 14	780							
	STD	0900		356	3485		773	00044		0418		797							
	STD	1000		355	3485		773	0004		0463		813							
098	OBS	T1070		355	34846		773					825							
	STD	1100		355	3485		773	00046	41	0509		830							
	STD	1200		355	3485		773	0004		0556		847							
	STO	1300		354	3486		774	0004		060		863							
	STD	1400	) (	354	3487	27	775	0004	723	0650	0 14	880							
	STD	1500		354	3488	27	776	0004	729	0091	8 14	897							
098	085	T1652	2 (	353	34897	27	777				14	1923							

Coop   Chiloup   Coop   Chiloup   Coop   Chiloup   Coop   Chiloup   Coop   Chiloup   Coop   Coop   Chiloup   Coop   Coo	PODC ATION JMBER DO12
Coord   Coor	ATION JAMBER DOLL
31 174   SC   5627 N   05102 W   186   61   10   18   189   1967   828   112   3658   15   24   2   3   8   6	0012
Mater   Winco   Cook   Tank   District   Cook   Tank   Cook   Tank   District   Distr	
Note	рН
NESTENDED   CAST   CARD   DEPTH (m]   T C   S '\(.)   SIGMA-T   SHEHIC VOLUME   EACH   SUN, M. SOUND   VILOUIT   V	рН
	рН
STD   OOO   O723   3458   2708   O009949   OOO   14794   OOO   O	рН
STD   0000   0723   3458   2708   0009949   0000   14794   189   085   0000   0721   3458   2708   0009935   0010   14795   14796   189   085   0020   0720   3458   2708   0009930   0020   14796   14796   189   085   0024   0719   34583   2708   0009930   0020   14796   14796   189   085   0049   0666   34622   2719   14780   14796   189   085   0049   0666   34622   2719   14780   14777   STD   0075   0487   3474   2751   0005963   0067   14714   189   085   0098   0389   34799   2766   14677   STD   0100   0388   3480   2766   0004498   0080   14677   STD   0125   0379   3481   2768   0004498   0080   14678   189   085   0148   0374   34815   2769   14680   189   085   0199   0371   34842   2771   0004104   0123   14687   189   085   0199   0371   34842   2771   0004104   0123   14687   189   085   0249   0365   34852   2773   0004029   0143   14693   STD   0250   0365   3485   2772   0004029   0143   14693   STD   0250   0365   3485   2773   0004062   0163   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   1470	рН
STD   0000   0723   3458   2708   0009949   0000   14794   189   085   0000   0721   3458   2708   0009935   0010   14794   189   085   0020   0720   3458   2708   0009935   0010   14796   189   085   0024   0719   34583   2708   0009930   0020   14796   14796   189   085   0049   0666   34622   2719   14780   14777   STD   0075   0487   3474   2751   0005963   0067   14714   189   085   0098   0389   34799   2766   14677   STD   0100   0388   3480   2766   0004498   0080   14677   STD   0125   0379   3481   2768   0004498   0080   14678   189   085   0148   0374   34815   2769   14680   189   085   0148   0374   34842   2771   0004104   0123   14687   189   085   0200   0371   34842   2771   0004104   0123   14687   189   085   0249   0365   34852   2773   0004029   0143   14693   STD   0250   0365   3485   2772   0004029   0143   14693   STD   0250   0366   3485   2772   0004029   0143   14693   STD   0250   0366   3485   2773   0004062   0163   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   14700   189   085   0300   0361   34846   2773   0004062   0163   14700   1470	, , , , , , , , , , , , , , , , , , ,
189	
189	
STD   O010   O721   3458   2708   O009935   O010   14795	
STD   O020   O720   3458   2708   O009930   O020   14796	
189	
STD   O030   O712   3459   2710   O009768   O030   14795	
189	
STD         0050         0658         3463         2721         0008794         0048         14777           STD         0075         0487         3474         2751         0005963         0067         14714           189         08S         0098         0389         34799         2766         0004498         0080         14677           STD         0100         0388         3480         2766         0004498         0080         14677           STD         0125         0379         3481         2768         0004356         0091         14678           189         08S         0148         0374         34815         2769         0004254         0102         14680           189         08S         0199         0371         34842         2771         0004104         0123         14687           189         08S         0249         0365         34852         2773         14693           189         08S         0249         0365         34852         2773         0004029         0143         14693           5TD         0300         0361         3485         2773         0004029         0143         14693	
STD 0075 0487 3474 2751 0005963 0067 14714 189 085 0098 0389 34799 2766 14677 STD 0100 0388 3480 2766 0004498 0480 14677 STD 0125 0379 3481 2768 0004356 0091 14678 189 085 0148 0374 34815 2769 14680 STD 0150 0374 3482 2769 0004254 0102 14680 189 085 0199 0371 34842 2771 0004104 0123 14687 STD 0200 0371 3484 2771 0004104 0123 14687 189 085 0249 0365 34852 2773 14693 STD 0250 0365 3485 2773 0004029 0143 14693 STD 0300 0361 34846 2773 0004062 0163 14700	
189	
STD 0100 0388 3480 2766 0004498 0080 14677 STD 0125 0379 3481 2768 0004356 0091 14678  189 085 0148 0374 34815 2769 14680 STD 0150 0374 34815 2769 0004254 0102 14680  189 085 0199 0371 34842 2771 14687 STD 0200 0371 3484 2771 0004104 0123 14687  189 085 0249 0365 3485 2773 14693 STD 0250 0365 3485 2772 0004029 0143 14693 STD 0300 0361 34846 2773 0004062 0163 14700	
STD 0125 0379 3481 2768 0004356 0091 14678 189 085 0148 0374 34815 2769 14680 STD 0150 0374 3482 2769 0004254 0102 14680 189 085 0199 0371 34842 2771 14687 STD 0200 0371 3484 2771 0004104 0123 14687 189 085 0249 0365 34852 2773 14693 STD 0250 0365 3485 2772 0004029 0143 14693 STD 0300 0361 3485 2773 0004062 0163 14700 189 085 0300 0361 34846 2773 14700	
189	
STD 0150 0374 3482 2769 0004254 0102 14680 189 08S 0199 0371 34842 2771 14687 STD 0200 0371 3484 2771 0004104 0123 14687 189 08S 0249 0365 34852 2773 14693 STD 0250 0365 3485 2772 0004029 0143 14693 STD 0300 0361 34846 2773 0004062 0163 14700 189 08S 0300 0361 34846 2773 14700	
189	
STD 0200 0371 3484 2771 0004104 0123 14687 189 085 0249 0365 34852 2773 14693 STD 0250 0365 3485 2772 0004029 0143 14693 STD 0300 0361 3485 2773 0004062 0163 14700 189 085 0300 0361 34846 2773 14700	
189 085 0249 0365 34852 2773 14693 5TD 0250 0365 3485 2772 0004029 0143 14693 5TD 0300 0361 3485 2773 0004062 0163 14700 189 085 0300 0361 34846 2773 14700	
STD 0300 0361 3485 2773 0004062 0163 14700 189 08S 0300 0361 34846 2773 14700	
189 OBS 0300 0361 34846 2773 14700	
STD 0400 0362 3485 2773 0004130 0204 14717	
189 085 70402 0362 34854 2773 14717	
STD 0500 0361 3486 2774 0004109 0245 14733	
189 08S 0500 0361 34863 2774 14733 STD 0600 0363 3488 2775 0004093 0286 14751	
STD 0600 0363 3488 2775 0004093 0286 14751 189 085 10675 0365 34887 2775 14764	
STD 0700 0364 3489 2775 0004135 0327 14768	
STD 0800 0360 3489 2776 0004184 0369 14783	
189 OBS O802 O360 34886 2776 14783	
STD 0900 0358 3489 2776 0004232 0411 14799	
STD 1000 0356 3489 2776 0004278 0454 14814	
189 OBS T1013 0356 34890 2777 14816	
STD 1100 0355 3489 2777 0004331 0497 14831	
STD 1200 0354 3489 2777 0004385 0540 14847	
STD 1300 0353 3490 2777 0004432 0>84 14863	
STD 1400 0353 3490 2778 0004497 0029 14880	
STD 1500 0353 3490 2778 0004555 0674 14897	
189 085 T1512 0353 34902 2778 14899	

REFERENCE		T				- #K	MARSO	EN	STATION TO				ORIGIN	ATOR'S		DEPTH	MAX. DEPTH	040	WAVE	WEA-	CLOUD		.!	100C	
CTRY IQ.	CDO			LON		NDC	SOUAF		(GMT)		YEAR	CRUISE	5	TATION		TO MOTTO8	OF	L		THER	TYPE AM		S1 N	UMBER	
CODE NO.			1/10		1/10		10°	1.	MO DAY H	R_1/10		NO.	-	IUWBE	-		S'MPL'S	DIR,	HGT PER SE	A		-			
31117	4 50	5630	) N	05	100 W	1	186	61	10 19	110 1	967	828	01	3		3658	15	23	0 2		5 6			0013	
								WAT	ER V	UND	BAR	0-	AIR TE	MP. °C	VIS.	NO.	SPE	CIAL							
									TRANS. OIR.	SPEED	METI		DRY IULB	WET	CODI	OBS.	ORSERV								
							-	300	-	FORCE	(mbs	-			+										
									19	506	21	7 0	72	05	5 7	14					-				
	MESSE	NGR CAST	CI	ARD.					/			SPECIFIC	C VOLU	ME .	E △ D	102	QNU	O 2 m1/1	PO <sub>4</sub> -P	TOTA L-P	NO2-N	NO3-N	SI O4-Si	ρН	S
	TIA	IE OF NO.		/PE	OSPTH	(m)	T °	C	s */.	SIGM	A-I	ANDM	ALY-XI	07	x 10 <sup>3</sup>	. AET	OCITY	02 11171	µg = 01/1	μg = 01/1	υg - σI/I	yg = a1/1	yg = a1/l	pri	č
	HR 1	/10	-											$\neg$		-									
	!	1	1	STD	000	0	0.6	59	3455	271	4	0.00	934	.4	0000	) 14	768		1		l.	l	1		1.
		110		35	000			59	34548	27		000	, , , , .	•			768								
		110		STD	001			59	3455	27		000	1932	1	0009		770								
				STD	002			56	3456	27			0926		0019		771								
		110		35	002			55	34560	27							771								
				STD	003			51	3456	27		000	0917	0	0028	3 14	770								
		110		BS	004		06	39	34578	27	19					14	769								
				STD	005	0	06	33	3459	27.	2.1	000	0877	6	0046	5 14	767								
				STO	007	5	05	02	3478	275	56	000	0583	1	0064	+ 14	720								
		110		BS	009	7	04	31	34890	276	9					14	696								
				STD	010	0	04	30	3489	271	59	000	0425	2	0077	7 14	696								
				STD	012	5	04	25	3489	271	59	000	0421	9	0087	7 14	698								
		110	0	BS	014	7	0.4	20	34891	27	70						+700								
				SID	015	0	04	19	3469	27	70	000	0417	4	0098		+700								
		110	0	8\$	019	7	04	04	34906	27	73						+701								
				STD	020	0	04	102	3490	27		000	0390	16	0118		+701								
		110	0	88	024			84	34870								+701								
				STD	025			84	3487	27		000	0406	5	0138		+701								
		110		B\$	029			79	34887						015		+707								
				STD	030			379	3489	27		000	0394	+0	0158		4708								
		110		BS	1039			368	34862				0	41	010		+719								
				STD	040			368	3488	27		00	0396	0 0	0191		+719								
		110		85	049			359	34862			0.0	01.01	. 7	0.2%		4731								
				STD	050			359	3486	27			0408		023		4732								
				STD	060			357	3487	27		00	0406	9	027		4748 4759								
		110		85	1066			356	34882	27 27		0.0	0408	7	032		4764								
		110		STD	070			356	3488			0.0	0400	) [	0021		4779								
		110		85	078			357	34882			0.01	041	7.0	036		4781								
				SID	080			357	3488 3488	27 27			0424		040		4797								
		110		STD	090			354	34882			00	042	+0	U+U.		4811								
		110		B\$	1098			354	3488	27		0.0	043	12	0441		4813								
				STD	110			355	3488	27			044(		048	_	4830								
				STD	120			355	3488	27			0449		053		4847								
				STD	130			356	3488	27			045		057		4864								
				STD	140			357	3488	27			0460		002		4882								
		110		BS	T14			357	34882			-					4896								
		110	0	0.0	1 7 4		٠.		5,002																

REFERENCE		_ ≅ MA	RSOEN	STATION T			ORIGIN	NATOR'S	I	DEPTH	MAX. DEPTH		WAVE	WEA-	CLOUD			1000	
CTRY ID. CODE LATITU		12 2	UARE	(GMT)		AR CRUI		STATION		TO BOTTOM	OF		ERVATIONS	THER	CODES		ST	UMBER	
	1/10	1/10 = 10°		MO DAY H		NC	-	NUMBER			3 MPL		HGT PER SI		TYPE A.M.				
31 1174  SC   5630	N 05	055 W   186	1			967 62				3658	11	15	3 4	06	5   7			0014	
			WA		SPEED	BARO-		MP. "C	VIS.	NO. OBS.		CIAL							
			COLOR	.RID .ZMART	FORCE	(mbs)	ORY BULB	BULB	CODE	DEPTHS	OBSERV	ATIONS							
			-	13		044	094	089	9 4	14									
MESSENGR CAST	CARO	OEPTH (m)	T TC	s ./			FIC VOLU	UME 3	E A D	soi	UND		PO <sub>4</sub> -P	TOTAL-P	NO2-N	NO <sub>3</sub> -N	SI 04SI		5
HR 1/10	TYPE	OSPIH (m)		3 700	SIGMA	-T ANG	MALY-X	107	X 10 <sup>3</sup>	. AET	OCITY	0 2 ml/l	µg = e1/1	yg - o1/1	μg - at/l	yg - at/1	νg - α1/1	pН	c
1 '	SID	0000	3708	3458	2710	່ 0 ເ	0972	26 (	0000	14	788		I	1				'	
106	OBS	0000	3708	34582	2710	0				14	788								
	SID		0708	3458	2710		0975	7 (	010	1 14	790								
106	OBS		0707	34578	2710						791								
	STD		0706	3458	2710		0975		0019		791								
106	STD OBS		0702 0 <b>69</b> 9	3458 34590	2711 2712		0971	12 (	0029		791								
100	STD		0566	3468	2736		0728	46 (	0046		741								
106	085		0407	34774			0120	,	30 40		600								
	STD		0405	3477	2764		0484	40 (	0061		680								
	STD	0100	0389	3477	2764	4 00	0472	25 (	0073	14	677								
106	085		0386	34770	2764					14	677								
	SID		0385	3479	2766		0456	56 (	0085		680								
106	OBS		0382	34817	2768		013				683								
106	STD		0381 0375	3482 34851	2766		0432	:4 (	0096		685								
100	STO		370	3463	2770		0418	14 (	117		657								
106	OBS		0367	34825	2770		0 120	, ,	,		688								
	SID	0250	0366	3464	2774	2 00	0411	14 (	138	14	693								
106	OBS		3365	34848	2772	2				14	700								
	STD		0365	3485	2772		0407	73 (	1159		701								
106	OBS		0363	34857	2773						709								
106	STD		0363	3485	2772		0414	+0 (	0200		717								
106	0BS ST0		0363	34848 3486	2772		0414	. 2 /	0241		719								
106	085		0361	34868	2774		041-	**	7 - 4 I		742								
100	STD		0360	3467,	2775		0413	32 (	282		749								
106	OBS		0358	34872	2775						764								
	STD	0700	0358	3487	2775	5 00	0418	30 (	324		765								
	STD		0358	3488	2775		0423	35 (	306	14	782								
	STO	-	0358	3488	2776		10426		0409		798								
	STO		0358	3488	2776		0434		1452		815								
1.07	STO		0358	3469	2776		0439	96 (	)495		832								
106	085	T1110	3358	34868	2776	0				14	834								



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Woods 11013 2000 MOTOR DICENTON